CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, October 7, 1909.

CONTENTS.

CONSTRUCTION NEWS:
Plans and Specifications on File..... 121
List of Contracts Pending........... 121
Railways 121
Electric Railways 121
Light and Power Plants.............. 122
Bridges 122
Buildings 123
Water Supply and Irrigation......... 124
Sewerage 125
Streets and Roads 125
Manufacturing Plants 127
Miscellaneous Contracts 128
Contract Prices 128
CIVIL SERVICE EXAMINATIONS..... 128
INDUSTRIAL NOTES 128
TRADE PUBLICATIONS 129
PROPOSALS 130

CONSTRUCTION NEWS.

Plans and Specifications on File.

(* *denotes that this work is advertised in Engineering News.*)

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close. Work. See issue.
10-13 Electric wiring, Fort Myer, Va. ....(P. & S.) 9-23
10-16 Power plant alterations, Philadelphia, Pa. ....(S.) 9-30
10-18*Riprap groins, Mobile, Ala. (S.) 9-23
10-19*Main, Atlantic City, N. J...(S.) 10-30
10-21*Pump, Kansas City, Mo.....(S.) 9-23
10-28*Dike, Casper, Wyo..........(S.) 9-16
11- 5*Quarters, Ft. Du Pont, Del......10- 7
11-10*Pumping engine, Dallas, Tex.(S.) 9-23
12- 1*Heating, ventilating, New Zealand..................(P. & S.) 9- 9

List of Contracts Pending.

LIGHT. HEAT AND POWER PLANTS.

10- 8 Motors, etc., Spokane, Wash.....10- 7
10- 8 Lighting fixtures, Greenville, Tex.10- 7
10- 8 Lighting fixtures, Gainesville, Ga.10- 7
10- 8 Lighting fixtures, Walton, Ga....10- 7
10-13 Electric wiring, Fort Myer, Va.. 9-23
10-16 Power plant alterations, Philadelphia, Pa. 9-30
10-18 Lamp posts, Muskogee, Okla....10- 7
10-18 Equipment, Helena, Mont.......10- 7
10-19 Equipment, Madison, Wis........10- 7
10-19 Wiring, Fort Lincoln, N. Dak.. 9-30
10-20 Lighting. New Albany, Ind...... 9- 2
10-21 Power plant, New York..........10- 7
10-22 Wiring, etc., Omaha, Neb........10- 7
10-26*Lighting system, Fort Douglas, Utah 10- 7
10-28*Electric motors, Toronto. Ont... 9- 2
10-30 Generator sets, Boston, Mass... 10- 7
11- 8 Electricity, Savannah, Ga.......10- 7

BRIDGES.

10- 8*Bridge, Asheville, N. C......... 9-30
10- 8 Bridge, Floyd, Va...............10- 7
10-11 Bridges, South Bend, Ind........10- 7
10-11 Viaduct, St. George, N. Y.......10- 7
10-11 Bridge, Lisbon, Ohio 9-30
10-11*Substructure, etc., Cincinnati, Ohio 9-23
10-12 Bridge approaches, etc., canal, Winchester, Ohio 9-30
10-12 Substructure, Chambersburg, Pa.. 9-30
10-13 Bridge, Silver City, Idaho.......10- 7
10-13 Bridge work, Cleveland, Ohio....10- 7
10-15 Bridge, Shiprock, N. Mex 9-16
10-18*Bridge, Natchitoches, La 9-16
10-18 Culvert, etc., Redwood City, Cal..10- 7
10-19 Bridges, Newark, Ohio 9-30
10-25*Bridge, Vancouver, B. C......... 9-30
10-25 Substructure, Flushing, Ohio....10- 7
10-27 Culvert, Cleveland, Ohio 10- 7
10-27 Bridge, Assessippi, Man.......... 9-30
11- 3 Bridge, Tallulah, La 9-16
11- 4 Bridging, Fowler, Ind...........10- 7

BUILDINGS.

10-11 Hospital, Farmington, Mo...... 9-30
10-12 Library, Indianapolis, Ind....... 9-30
10-14*Post-office, Belfast, Me. 9- 9
10-14*Quarters, Ft. Sheridan, Ill...... 9-23
10-15*Screens, Ft. Morgan, Ala........ 9-23
10-15 Police station, New York.......10- 7
10-15 School, Indianapolis, Ind........10- 7
10-15 Mech. Equip., Indianapolis, Ind..10- 7
10-16 Ropewalk, Boston, Mass. (Mfg. Pl.) 10- 7
10-18 Bldg. material, Chilocco, Okla...10- 7
10-18*Post-office, La Crosse, Wis...... 9- 9
10-19*Post-office, Elgin, Ill........... 9- 9
10-20 Post-office, Manitowoc, Wis 9-16
10-20 Quarters, Ft. Riley, Kan....... 9-30
10-20 Fire headquarters, New York....10- 7
10-22 Stables, Omaha, Neb............ 9-30
10-22 Post-office, Columbus, Miss 9-23
10-23 Quarters, etc., Ft. Sam Houston.10- 7
10-28 State-house, Augusta, Me 10- 7
10-25*Post-office, Pittsfield, Mass...... 9-23
10- 4 Schools, New York 9-23
11- 1*Post-office, Eagle Pass, Tex...... 9-28
11- 3*Post-office, Albany, Ga.......... 9-30
11- 4 Post-office, North Adams, Mass.10- 7
11-10 Capitol, Helena, Mont........... 9-30
12- 1*Heating, ventilating, New Zealand 9- 9

WATER-WORKS.

10- 8 Water-works, Carroll, Neb....... 9-30
10- 8 Pumps, Spokane, Wash 9-23
10- 8 Main, Grand Rapids, Wis.........10- 7
10- 9 Crossing, Sheboygan, Wis........ 9-30
10-11 [illegible] tubes, Victoria, B. C...... 9-30
10-11 Water-works, Conway, Pa.......10- 7
10-12 Flumes, Ouray, Colo........... 9-30
10-12 Water system, Fort Gibson, Okla. 9-30
10-13 Mains, New York 10- 7
10-13*Main, Middletown, Conn.........10- 7
10-15 Water supply, Howell, Mich.....10- 7
10-15*Reservoir, Asheville, N. C...... 9-30
10-16 Canal impvt., Ceres, Cal.........10- 7
10-18 Water-works, Colusa, Cal.........10- 7
10-19*Main, Atlantic City, N. J....... 9-23
10-20 Pumping engines, Pittsburg, Pa..10- 7
10-20 Reslating Pump Sta. roof, Camden, N. J.........................10- 7
10-20*Aqueduct, New York 10- 7
10-21*Pump, Kansas City, Mo 9-23
10-21*Distributing system, Wilmington, N. C. 9-30
10-28*Dike, Casper, Wyo............... 9- 9
10-28*Turbine pumps, Toronto, Ont.... 9-16
11- 4 Water pipe, Titusville, Pa......10- 7
11-10*Pumping engine, Dallas, Tex..... 9-23

SEWERS.

10- 8 Sewer, Wooster, Ohio 10- 7
10- 8 Sewer, Youngstown, Ohio 10- 7
10- 8 Sewer, Akron, Ohio 10- 7
10- 9 Sewers, Caldwell, Idaho 10- 7
10- 9 Sewers, Rosseau, Minn 10- 7
10- 9 Sewer, Wellsville, Ohio 10- 7
10- 9 Sewer, Evansville, Ind.......... 9-30
10-11 Sewer, Manchester, Iowa 10- 7
10-11 Sewer, Green Bay, Wis...........10- 7
10-11 Sewers, West Allis, Wis.........10- 7
10-13 Sewer, Cleveland, Ohio 10- 7
10-14 Sewers, New Brighton, N. Y.... 9-30
10-14*Sewers, Batavia, N. Y........... 9-23
10-15 Sewers, Elizabeth, N. J.........10- 7
10-18 Sewers, Salem City, N. Dak.....10- 7
10-18 Sewer, Huntington, W. Va....... 9-30
10-19*Sewers, Canyon City, Tex........10- 7
10-25*Sewer mains, etc., Wichita, Kan.10- 7
10-27 Sewering, Steubenville, Ohio.....10- 7

STREETS AND ROADS.

10- 7 Paving, Woodburn, Ore..........10- 7
10- 7 Roads, Bristol, Tenn............10- 7
10- 8 Macadam, Bryan, Ohio 10- 7
10- 8 Paving, Chicago, Ill.............10- 7
10- 8 Paving, Akron, Ohio 10- 7
10- 8 Gravel road, Winamac, Ind....... 9-30
10- 8 Paving, Youngstown, Ohio....... 9-30
10- 9 Gravel roads, Mt. Vernon, Ind.... 9-30
10- 9 Grading, etc., Bristol, Tenn..... 9-23
10- 9 Road, Lake City, Colo...........10- 7
10-11 Sidewalks, Portland, Ind.........10- 7
10-11 Paving, Quincy, Ill..............10- 7
10-11 Paving, Lakewood, Ohio 10- 7
10-11 Roads, Cincinnati, Ohio 10- 7
10-11*Paving, Ashland, Ky............10- 7
10-11*Paving, Newark, N. J............ 9-23
10-11*Paving, Boston, Mass........... 9-30
10-12 Paving, Ligonier, Ind............10- 7
10-12 Grading, Logansport, Ind........10- 7
10-12 Walk, Shelbyville, Ind...........10- 7
10-13 Road, Riverside, Cal............ 9-30
10-13*Gravel road, Freehold, N. J.... 9-23
10-14 Paving, etc., New York 9-30
10-14 Tile paving, New York...........10- 7
10-14 Macadam, New Rochelle, N. Y...10- 7
10-15 Paving, etc., Ft. Morgan, Ala.... 9-30
10-15 Gravel road, Covington, Ind...... 9-30
10-19 Road, Toledo, Ohio.............. 9-30
10-19 Sidewalks, Huntsville, Ala...... 9-30
10-21*Macadam, etc., Ft. H. G. Wright, N. Y. 10- 7
10-26 Roads, Pittsburg, Pa.............10- 7

MISCELLANEOUS.

10- 8*Garbage crematory, Fort Terry, N. Y. (Garbage) 9-16
10- 8 Wharf, Boston, Mass............. 9-30
10- 8 Ditches, Sterling, Ill. 10- 7
10- 8 Dredging, Chicago, Ill. 10- 7
10- 9 Sale of Ry. (Alaska Central)..... 9-23
10-11 Ditch, Beecher, Ill............... 9-30
10-12*Steel pontons, St. Louis, Mo.... 9-23
10-15 Timber, Kingston, Ont............ 9-30
10-15 Fire Engines, etc., New York..10- 7
10-16 Drain, Farmersville, Ill. 10- 7
10-18 Structures, Montgomery, Ala. ...10- 7
10-18 Drainage, Chewelah, Wash......10- 7
10-18 Ditch, Oklahoma City, Okla.....10- 7
10-18 Railings, etc., New York........10- 7
10-18 Iron, steel, etc., New York......10- 7
10-18 Rock-crushing plant, Los Angeles, Cal. 9-30
10-18*Riprap groins, Mobile, Ala...... 9-23
10-19*Dredging pump, St. Louis, Mo.... 9-30
10-19*Dredging, Trenton, N. J......... 9-30
10-21 Railings, etc., New York........10- 7
10-21 Comfort stations, New York....10- 7
10-20*Stone, Savannah, Ga........... 9-23
10-28 Levee enlargement, Memphis, Tenn.......... ....10- 7
10-30*Levee, Ditch, Caldwell, Tex.....10- 7

EXAMINATIONS.

10-20 Highway Engr., Wash., D. C.... 9-23
10-20 Mechanical Draftsman, Wash., D. C 9-23
10-20 Testing Engr., Wash., D. C...... 9-28
10-20 Aid, Grain Standardization, Washington, D. C. 10- 7
10-27 Engineer, West Point, N. Y......10- 7
10-27 Engr.-Draftsman, Wash., D. C..10- 7

RAILWAYS.

ALABAMA.—The Ruby Coal Co. has surveyed for two miles of railway to mines and is ready to receive bids on construction. W. R. Coleman, 1030 Woodward Bldg., Birmingham, Ala., is Engr. J. S. Shannon is Mgr.

ASHEVILLE & EAST TENNESSEE.—Company has had surveys made and has partly secured the capital for the construction of its projected 40-mile line from Weaverville, N. C., to a junction with the C., C. & O. Ry. in Yancey County, North Carolina, it is announced. It has not been decided when construction contracts will be let. B. M. Lee, Asheville, N. C., is Ch. Engr.; John H. Carter, Asheville, is Pres., and R. S. Howland, Asheville, is Vice-Pres.

ATCHISON, TOPEKA & SANTA FE.—An officer of this company is reported to have stated that "plans are being made to relay the present track from Newton, Kan., south to Arkansas City, 78 miles, and from Arkansas City south to Purcell, Okla., 153 miles, with 90-lbs. rail. It is also the intention to lay 90-lb. rail from Ottawa, Kan., south to Cherryvale, 101 miles, as well as from Augusta south to Winfield, 31 miles, and Mulvane southwest to Wellington, 19 miles. Most of the line on which improvements are to be made is now laid with 65 and 75-lb. rails, and when all these improvements are made the main track from Chicago via Newton through to Purcell and also via Florence and Augusta to Wellington will all be laid with 85 and 95-lb. rails. There will also be 75 and 90-lb. rails on the main track of the Southern Kansas division from Ottawa via Chanute and Independence to Wellington. The rails will be delivered and laid this winter and during the early spring of 1910."

CHICAGO & NORTHWESTERN.—Contract has been let to the WINSTON BROS. CO., Globe Bldg., Minneapolis, for the extension from Belle Fouche, S. Dak., east to the government town site, about 25 miles.

CUYANA RANGE R. R.—An extension will be built from Deer Wood, Minn., easterly to Duluth, 125 miles. Cuyler Adams is Pres. and Gen. Mgr., Deer Wood. Noted on June 10.

ELIZABETHTOWN TERMINAL R. R.—Incorporated at Albany, N. Y., on Sept. 27, with a capital of $80,000 to operate by steam or other motive power a railroad eight miles long in Essex County, N. Y. The proposed road is to run from the Delaware & Hudson station at West Port to Elizabethtown. The directors include: Richard L. Hand, Francis A. Smith and George W. Jenkins, of Elizabethtown.

ENID, OCHILTREE & WESTERN.—The PANHANDLE CONSTRUCTION CO., 34 Nassau St., New York, and Dalhart, Tex., has been awarded the contract for constructing a line from Dalhart to Ochiltree, Tex., via Dumas, for the Enid, Ochiltree & Western R. R. The line will be 113 miles long. W. W. Stevenson is Secy., at New York; F. L. Bryant is Mgr., at Dalhart, Tex.

FORT WORTH, MINERAL WELLS & WESTERN.—Company proposes to begin construction soon on its line, which is to be 58 miles long. Surveys have been made, the necessary capital for construction secured, and contracts will be let within 60 days. Ultimately the road will have a length of 500 miles. M. J. McCombs, Fort Worth, Tex., is Locating Engr., and J. S. Handford, Fort Worth, Tex., is Pres. Noted on Sept. 23.

FREDERICKSBURG R. R.—J. P. NELSON, of San Antonio, Tex., has been awarded the contract by the Chamber of Commerce and the Business Men's Club, of San Antonio, to build a standard-gage railroad to Fredericksburg, Tex. The line is to be in operation before Dec. 28, 1910.

GEORGIA & FLORIDA.—M. M. ELKHARD, Macon, Ga., has the contract for constructing a 20-mile extension from Normantown to Swainsboro, Ga. John Skelton Williams, Richmond, Va., is Pres. of the Georgia & Florida Ry.; W. A. Swallow, Augusta, Ga., is Ch. Engr.

GULF, COLORADO & SANTA FE.—Surveys are under way for the proposed line to be built from a point on the Lampasas branch between Lampasas, Tex., and Brownwood west via San Saba and Richland Springs to the western boundary of San Saba County, about 45 miles. Contracts for the work probably will be let as soon as the surveys are finished. This branch may be extended to Eldorado, 80 miles. C. F. W. Felt is Ch. Engr., Galveston, Tex. Noted on Sept. 16.

HARRISON MINERAL BELT RY.—We are officially advised that this railway is to be built from St. Louis, Mo., through Salem, Houston, Cabool and Gainesville, Mo., and Dodd City, Harrison, Jasper and Clarksville, Ark., to connect with points south to be determined later. As soon as a sufficient guarantee is raised by the local people J. B. Taylor & Co., 30 Church St., New York, will make the final surveys and prepare for the construction. The line has been examined by W. E. McClintock, representing J. B. Taylor & Co., and has been formally reported on and financial arrangements have been made pending final surveys. Noted on Aug. 19.

MEMPHIS, PARIS & GULF.—Preliminary surveys have been made for the proposed extension from Murfreesboro via Amity to Hot Springs, 57 miles; also for an extension from Ashdown, Ark., to Clarksville and Greenville, Tex., 130 miles. It is ultimately proposed to build northeast to Little Rock and from there eastward to Memphis, Tenn. W. W. Brown is Pres. at Nashville, Ark. As noted on Aug. 19, "two preliminary surveys have been ordered for the extension of the road from Ashdown west. One of the routes to be gone over is by way of Richmond, Ark., and Clarksville, Tex., to Greenville, and the other by way of Richmond to Paris, Tex. Surveys for the eastern extension of the road were completed some time since, the routes being from Murfreesboro via Amity to Hot Springs, Murfreesboro via Glenwood to Hot Springs and Murfreesboro via Graysonia and Arkadelphia to Pine Bluff. C. C. Henderson is Gen. Mgr., and H. C. McCluer is Ch. Engr., at Nashville, Ark."

NORTHWESTERN PACIFIC.—The plans for the construction of 30 miles of the Eureka extension of the Northwestern Pacific, which was recently authorized by the Southern Pacific and Santa Re railroads, include the building of a tunnel 1,150 ft. long and four miles of track this fall and winter, according to A. H. Pewson, Pres. of the N. W. P. Ry. Co. The tunnel will be located near the present end of the track at Shively, south of Eureka. It is proposed to complete the grade and lay track four miles north, out of Willits. Concerning future work, the 30 miles of construction contemplated in the appropriation of $2,000,000, which was recently made, probably will be prosecuted south from Shively to the Eel River crossing at Dyerville, and north from Willits to the Covelo bridge.

OREGON SHORT LINE.—The UTAH CONSTRUCTION CO., Ogden, Utah, has been awarded the contract for constructing a 12-mile branch line from Ikom to Pocatello, Idaho, for the Oregon Short Line R. R.

TENNESSEE CENTRAL.—Preliminary survey is now being made for an extension from Hopkinsville, Ky., northwest via Gracey, Cadiz and Rockcastle, on the Cumberland River, and Birmingham, on the Tennessee River, to Paducah, 70 miles. Bridges will be built over the Cumberland and Tennessee Rivers. L. F. Lonnbladh is Ch. Engr., 513 Stahlman Bldg., Nashville, Tenn.

VANCOUVER, VICTORIA & EASTERN.—J. H. Kennedy, Ch. Engr., has completed surveys at Coquihala, B. C., for an 8-mile tunnel which will save 30 miles of the route between Vancouver and Princeton, B. C. It will cost approximately $1,500,000.

VIRGINIAN RY.—Company has filed maps, etc., with County Clerk, Princeton, W. Va., authorizing and directing the construction of 5.85 miles of road up Flipping Creek to a point above Goodwill, and 6.23 miles up Crane Creek at Mora and Sagamore.

WICHITA FALLS & NORTHWESTERN.—An extension is to be built at once from a point near Mangum north to either Elk City or Sayre, in Beckham County, Okla., about 40 miles. T. H. Webb is Ch. Engr., Wichita Falls, Tex.

ELECTRIC RAILWAYS.

ALBANY, N. Y.—We are officially informed that the Albany Southern R. R. Co. will let contracts at once for double-tracking and straightening 13 miles of railroad. R. A. C. Smith is Pres., 100 Broadway, New York. As noted on Sept. 23, this company, incorporated on Sept. 14, is a reorganization of the Albany & Hudson Railroad, the third-rail electric line between Albany and Hudson, which went into a receiver's hands some months ago and whose properties were sold under mortgage foreclosure on Sept. 8. The new company has a capital of $3,475,000, of which $2,100,000 is preferred and $1,375,000 common stock. The company's principal office is in Rensselaer. The Directors are W. R. Gross, R. A. C. Smith, Chas. H. Werner, 3 South William St.; A. M. Young, Irvin M. Day, 33 Wall St.; L. B. Grant, C. M. Congdon, of New York; C. L. Rossiter, of Brooklyn, and Myron T. Herrick, of Cleveland, Ohio.

BUFFALO, N. Y.—The Buffalo Southern Ry. Co. plans to have its extension to East Aurora, 13 miles, in operation by Jan. 1. Construction is under way.

ERIE, PA.—The Erie, Cambridge, Union & Corry Ry. Co.'s property has been purchased by A. O. Chapin, of Erie. The railway will be completed and placed in operation by the new owners. The line will connect Erie, Waterford, Le Boeuf, Union City, Elgin and Corry, with branch line to Mill Village, Miller's Station and Cambridge Springs.

HICKORY, N. C.—The Hickory Ry. Co., we are officially advised, has partly secured its right-of-way for its railway which will connect Hickory, Lincolnton, Catawba Springs, Taylorsville, Wilkesboro, Jefferson, Boone and Blowing Rock, 85 miles. Surveys are partly made. Contracts will not be let until after the completion of hydro-electric development on the Catawba River. M. E. Thornton, Hickory, is Pres. Noted on July 29.

MAYSVILLE, KY.—The RELIANCE ENGINEERING CO., Fourth National Bank Bldg., Cincinnati, Ohio, has been awarded contract for engineering work connected with the construction of the Cincinnati, Louisville, Lexington & Maysville Traction Co.'s proposed line. W. T. S. Blackburn, Dry Ridge, Ky., is Pres. Noted fully on June 10.

CHESAPEAKE, OHIO.—The Town Board has granted a 25-year franchise to A. E. Cox and associates, of Huntington, to build an electric railway through Chesapeake. The proposed railway will extend from Ironton to Gallipolis on the Ohio side of the Ohio River and from Point Pleasant to Guyandotte on the West Virginia side.

LOWELL, OHIO.—We are officially advised that the Muskingum River Traction Co. (the Parkersburg, Marietta & Interurban Ry. Co.) has awarded the following contracts on the 10-mile line between Lowell and Beverly, Ohio: Grading (three miles completed) to R. T. MARTIN; concrete, to CANNER & BATTERSBY; steel, McCLINTIC-MARSHALL CONSTRUCTION CO., Pittsburg.

PAOLI, IND.—The Board of Commissioners of Orange County has granted a franchise to Charles D. Kelso and J. H. Fawcett to build an interurban electric railway over the county turnpike from Paoli to New Albany. The franchise provides that the railway must be completed by Dec. 15, 1910.

ELGIN, ILL.—We are officially advised that the Elgin, Woodstock & Lake Geneva Ry. Co. probably will let construction contracts within 60 days. The line will be 65 miles long and will connect Elgin, Dundee, Carpentersville, Algonquin, Crystal Lake, Woodstock, McHenry and Lake Geneva. Surveys are made and 85% of the right-of-way secured. Capital is being negotiated now. Frank R. Spear is Pres., 806 Great Northern Bldg., Chicago. The George Painter Contracting Co., 701 Great Northern Bldg., Chicago, is Engr.

GALESBURG, ILL.—The City Council has granted an extension of the franchise of the Peoria & Galesburg Ry. Co. from 25 years to 30 years. S. F. Atwood, Mayer Office Bldg., Peoria, Ill., is Secy. and Treas.

KANKAKEE, ILL.—The Kankakee & Urbana Traction Co. has been incorporated in Illinois, with $200,000 capital and office at Kankakee. The plans call for lines as follows: From Kankakee south to Urbana, through the counties of Kankakee, Iroquois, Ford and Champaign; from a point in Champaign County south through Douglas and Coles counties to Charleston; from a point near the county line between Kankakee and Iroquois southwest to the village of Piper City, in all about 165 miles. The incorporators and directors include: R. F. Cummings, G. M. Bennett, I. N. Palmer, W. J. West, C. E. Thrasher, F. J. Hennessy and U. Schaub. W. J. Brock is Pres., and W. D. Moore, Jr., is Ch. Engr., at Kankakee.

CHICAGO, ILL.—An ordinance has been introduced in the City Council, it is stated, which provides that all railway companies operating cars or trains within a radius of eight miles of the City Hall, in the city of Chicago, shall be operated by electrical power. The Illinois Central electrification will be in six sections, as follows: First, suburban tracks, Randolph St. to 63d St., from steam to protector third rail; second, express tracks to South Chicago, third rail; third, electrification Kensington tracks; fourth, electrification suburban and through passenger tracks to Burnside; fifth, passenger and freight tracks, between Park Row station and Burnside; sixth, passenger and freight tracks to Riverside. This includes all tracks within the city limits.

PORTAGE, WIS.—The Chicago & Wisconsin Valley R. R. Co. has been organized at Portage to construct an electric road from Janesville to Merrill, on a route touching six county seats, through Madison, Lodi, Briggsville, Friendship, Grand Rapids, Stevens Point, Wausau and Merrill. The officers of the new company are E. G. Frost, of Stevens Point, Pres.; J. W. Powers, Friendship, First Vice-Pres.; J. P. Barnes, Waupaca, Second Vice-Pres.; A. J. Behmeyer, Indianapolis, Secy.; J. E. Jones, Portage, Treas.; F. J. Tyndall, Briggsville, Asst. Treas., and Allen Russell, Baltimore, Gen. Mgr.

ABERDEEN, S. DAK.—A. L. Ward, of Aberdeen, has been granted a franchise to build a street railway in Aberdeen. The Aberdeen Ry. Co. is now being organized.

BILLINGS, MONT.—The Yellowstone Valley Traction Co. has plans under way for its proposed line from Billings to Laurel and eventually to other towns. The preliminary surveys have been completed and four routes have been located. The directors for the first three months are: J. B. Arnold, H. W. Rowley, Christian Yegan, P. B. Moss, I. D. O'Donnell, Joseph Zimmerman and R. E. Shepherd.

MEXICO, MO.—We are officially informed that the Mexico, Santa Fe & Perry Traction Co., Mexico, Mo., has awarded general contract for construction of its interurban road to BURNS & CO., 705 Isabella Bldg., Chicago. The line is to extend south from Mexico to Columbia and Fulton, and north to Santa Fe, Perry and Hannibal, a total of 103 miles. Construction will be started at Mexico about Nov. 1, in both directions, and it is proposed to rush the work. Burns & Co. will purchase all material and let all sub-contracts.

ST. LOUIS, MO.—The St. Louis County Belt R. R. Co. has been incorporated to build an electric belt railway through St. Louis County from north to south, and circling St. Louis. The railway will be 30 miles long, extending from Jefferson Barracks on the south to O'Neil on the north, circling St. Louis at an average distance of three miles from the city limits, and passing through Webster Groves, Maplewood, University City, Wellston and Ferguson, and the unincorporated towns of Affton, Clayton, Wheaton, Carsonville and Spanish Lake. The cost will be approximately $2,000,000. Capital stock, $200,000. Incorporators: Jas. D. Houseman, Clayton; Thos. M. Gallagher, Webster Groves; Jas. E. Hereford, Ferguson; Edw. W. Rannells, Maplewood; Geo. B. Bowles, Affton; Chas. A. Autenrieth, Clayton; Albert Wehmeyer. Headquarters will be at 414 Roe Bldg., St. Louis.

SAPULPA, OKLA.—It is announced that a contract has been signed for the construction of an interurban road between Tulsa and Sapulpa, by way of Taneha, a new manufacturing town, J. Robert Burnham, engineer in charge of construction, already has a party of surveyors in the field. Actual construction is to begin in 30 days. The line is to be built by the Midcontinent Traction Co., with headquarters at Taneha. The road will bisect the North Glen Pool extension of the oil field.

SHAWNEE, OKLA.—We are officially advised that the Shawnee Elec. Ry. Co. will build an electric traction line from Shawnee to Oklahoma City, 40 miles. Preliminary surveys have been made under direction of A. Hardgrave, Ch. Engr. Arrangements have been made for financing through J. P. Hornaday & Co. and J. B. Taylor & Co., 30 Church St., New York. It is proposed to operate by electricity with natural gas as motive power and to install the latest model of gas engine generators. The company also proposes to sell light and power to the towns along the line. The proposed line has been examined and reported favorably on by engineers of J. B. Taylor & Co. Company will probably start construction in a short time.

WALLA WALLA, WASH.—We are officially informed that the Washington Traction Co. plans to let construction contracts soon after Oct. 20. The line will connect Dayton and Pasco, Wash., 143 miles. Gilbert Hunt is Pres., Walla Walla. Noted fully on Sept. 16.

ROSEBURG, ORE.—Kuettner & Haas, of Portland, builders, have agreed with the Commercial Club of this city to deposit a bond for $100,000, the amount to be forfeited in the event they fail to construct an electric railway between Roseburg and Marshfield within 24 months from the time the necessary right-of-way can be obtained and the survey completed. Citizens of Coos Bay and Roseburg are to make the survey and furnish the right-of-way. Half of the survey is already completed and most of the right-of-way is promised by the citizens free as soon as they know the road will be built. It is expected the road, which is to tap the whole Coos Bay country, will be under construction within three months.

REDWOOD CITY, CAL.—F. T. Newberry, C. E., 203 Clement St., San Francisco, is interested in the promotion of an electric railway to connect Redwood City, Portola and La Honda. From La Honda a branch road would be built to San Gregorio, another to Pescadero and another to the Big basin.

LONDON, ONT.—The property of the Southwestern Traction Co. will be sold at the offices of the London & Western Trusts Co., Ltd., 382 Richmond St., London, Ont., by J. W. Jones, auctioneer, on Oct. 20, at noon. The railway is about 28 miles in length, connecting London with Port Stanley, on Lake Erie, passing through the city of St. Thomas. About 14 miles of the railway is built on private right-of-way, including entrance into London. The remainder is built on public highways. The railway is well constructed and equipped. The power-house is owned by the railway company.

LIGHT AND POWER PLANTS.

(** denotes that this work is advertised in Engineering News.*)

BOSTON, MASS.— BOSTON, MASS.—The Boston Elevated Ry. Co., John W. Corning, Elec. Engr., is planning to build a substation in the Forest Hills district, at the intersection of Washington St. and Bray St., to be used in supplying power to the Forest Hills elevated railway extension.

BOSTON, MASS.—Bids will be received by Lieut. Col. Edward Burr, Corps Engrs., U. S. A., until noon, Oct. 30, for motor generator sets, motors, centrifugal pumps, transformers, and lighting arresters.

ERVING, MASS.—We are officially advised that the ORANGE ELECTRIC LIGHT CO., of Orange, Mass., has been awarded contract by the city for supplying electricity for lighting houses and streets, 40 c.-p. Noted on Sept. 23.

NEW YORK, N. Y.—Bids are asked until 3 p. m., Oct. 21, by the Park Board, for work and material for the installation of electric light and power plant in the New York Public Library, Astor, Lenox and Tilden Foundations, Fifth Ave., 40th and 42d Sts.

ALBANY, N. Y.—The Public Service Commission, Second District, has authorized the Colonie Electric Co., of Colonie, to transfer all its property rights, franchises and privileges, excepting its generating station and equipment, to the Municipal Gas Co., Frank S. Dunny, Supt., Albany. The Commission also authorized the Municipal Gas Co. to construct and operate a distributing system on and along the Troy road from the Albany city line to the Schuyler bridge and Van Rensselaer Ave., Menands road, Loudonville road, Lyon Ave. and Ward's Lane, town of Colonie, for the distribution of electricity, in accordance with franchise granted by the Town Board on Sept. 4.

EDWARDS, N. Y.—Arrangements are being made by U. O. Webb to install an electric light plant in connection with his grist mill. Transmission lines are now being erected for the distribution of electricity and it is expected that the town will enter into a contract with Mr. Webb for lighting the streets, contracts having already been placed for lighting many of the business places and residences here.

BATAVIA, N. Y.—The Genesee Light & Power Co., of Batavia, has been incorporated to furnish light, heat and power, with a capital of $250,000. The incorporators are: W. C. Lewis, Boston, Mass.; A. Ludeke, of Hoboken, N. J.; F. W. Keller, of New York.

NIAGARA FALLS, N. Y.—The Board of Water Commissioners has awarded to the J. ELLWOOD BAIRD CO., of Buffalo, contract for 18,000 ft. of 4-hole duct for the transmission line cables to the water station. The company also secured contract for laying the conduit in Ferry, Welch, Buffalo and Columbus Aves. and other streets, at $12,700.

ORANGE, N. J.—The following are the bids opened on Sept. 20 by the Common Council, Willett B. Gano, City Clk., for the construction of the municipal electric light plant: (a) General construction and installation, (b) Main St. conduit: William Sheehan & Co., 136 Liberty Ct., New York, (a) $111,279, (b) $14,618; L. K. Comstock & Co., 50 Church St., New York, (a) $109,500, (b) $14,500; Storms & Co., Newark, (a) $111,714, (b) $16,604. Runyon & Carey, 122 Market St., Newark, are Engrs.

HOBOKEN, N. J.—The City Council on Sept. 22 passed an ordinance granting a franchise to the Citizens Light, Heat & Power Co. Work will commence on construction of the plant, building of conduits, etc., as soon as possible. The company expects to have its plant in operation and furnish electrical service within two years. It will furnish arc lamps for street lighting at $70 each per year, and electricity for commercial purposes at a maximum rate of 8 cts. per KW.-hour. In case the city decides to establish a sewerage pumping plant the company is to furnish the electricity for operating the pumps at cost.

IRVINGTON, N. J.—The Town Council has adopted a resolution authorizing the Lighting Committee, George W. Wells, Chn., to have plans prepared for a municipal lighting plant to invite estimates for same.

DELAWARE CITY, DEL.—Franchise has been granted by the City Council to the Delaware Water Improvement Co., of New Castle, to erect poles and string wires here.

WALTON, GA.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Oct. 8, for light fixtures for United States building here.

GAINESVILLE, GA.—Bids are asked by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., until 3 p. m., Oct. 8, for supplying lighting fixtures to the United States building here.

SAVANNAH, GA.—Bids will be received by the Committee on Streets and Lanes until Nov. 8 for furnishing electricity for arc and incandescent lamps for lighting the streets of the city and also for electricity to be used for lamps, heat and power. Harry Willink is Dir. Pub. Wks. At present there are about 570 arc lamps in use on the city streets.

JEFFERSON, GA.—The JEFFERSON COTTON MILLS CO., of Jefferson, has received contract from the City Council to construct an electric light plant to light town and pump water, construction on which will begin at once. E. P. Taylor, of Athens, Ga., is Engr.

AUGUSTA, GA.—The Georgia-Carolina Power Co., capitalized at $500,000, plans to develop 8,000 HP. by a dam 25 ft. high across the Savannah River, about one mile above the city locks.

COLUMBUS, OHIO.—The Board of Managers of the Penitentiary on Sept. 21 revoked contract recently let to John Hina, of Columbus, at $46,000, for constructing power house, and will receive new bids this month.

YOUNGSTOWN, OHIO.—The Mahoning & Shenango Ry. & Light Co., Youngstown, has awarded contracts for one 600-KW. motor generator set to the WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa., and one 200-KW. motor generator set to the GENERAL ELECTRIC CO., Schenectady, N. Y. It is stated that two additional boilers will be installed in the North Ave. power station about Nov. 1, meaning an addition of 1,000 HP.

CHICAGO, ILL.—Plans have been completed by Shepley, Rutan & Coolidge, Archs., 206 La Salle St., Chicago, for the construction of a large addition to the power plant of the Commonwealth Edison Co., at Quarry St. and the river. Estimated cost, $1,000,000.

STREATOR, ILL.—Improvements are being made to the power-house of the Illinois Light & Traction Co., Clifton W. Tyler, Ch. Engr., which will include the installation of two 312-HP. Heine boilers, stokers, grates and a coaling trestle.

MADISON, WIS.—Bids will be received by the Capitol Commission, Lew. F. Porter, Secy., until Oct. 19 for furnishing and installing the necessary equipment (except boilers, engines, dynamos and pumps, already purchased) for a heat, light and power plant at Capitol. D. W. Mead, 401 State St., Madison, is Engr.

IOWA FALLS, IOWA.—The Interstate Power Co. will expend about $612,500 in the construction of a plant at Iowa Falls.

AURORA, MINN.—Application has been made to the town officials by the Hartley Electric Co., of Virginia, Minn., for a 20-year franchise to construct and operate an electric light plant here.

WINONA, MINN.—The Winona Ry. & Lt. Co. contemplates purchasing boilers and coal handling outfit for its plant. C. A. Bernier is Elec. Engr.

FAIRFIELD, NEB.—Contract for the construction of an electric light plant and water-works system has been awarded by the city to F. C. BROOKS SONS CO., of Jackson, Mich. W. E. Underkofler is City Clk.

OMAHA, NEB.—Bids will be received by Capt. John L. Hines, Q. M., U. S. A., until Oct. 22 for construction, electric wiring and plumbing for Q. M. stable at Omaha Depot.

HELENA, MONT.—Bids will be received until Oct. 18 by J. A. Mattson, City Clk., for furnishing and delivering f. o. b. cars, Helena, equipment for an electric light plant. F. J. Edwards is Mayor.

HILLSBORO, MO.—The citizens are considering the question of issuing $15,000 of bonds, for the construction of an electric light plant.

GREENVILLE, TEX.—Bids are asked by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., until 3 p. m., Oct. 8, for lighting fixtures for United States building here.

ORANGE, TEX.—The Yellow Pine Paper Mill Co. has let the contract to the WESTINGHOUSE ELECTRIC CO. for the electric power equipment for their new plant. The contract for the electrical machinery and equipment amounts to between $35,000 and $40,000.

MUSKOGEE, OKLA.—Bids will be received by Charles Wheeler, Jr., City Clk., until Oct. 18 for furnishing 50 gas lamp posts f. o. b. Muskogee. Designs of posts must accompany each bid.

PITKIN, COLO.—A. E. Reynolds, Mgr. Gold Links tunnel, mines and mill, will install a hydro-electric plant.

BELLINGHAM, WASH. [illegible]he Whatcom County Ry. & Light Co., L. [illegible] Coffin, Elec. Engr., Bellingham, plans t[illegible]ouble the capacity of its York St. pow[illegible]tation. Estimated cost, $140,000. Th[illegible]mpany is installing a new water whee[illegible] displace the turbine in use at the Noo[illegible]k Falls power station, at a cost of $35,0[illegible] The York St. station has at present a c[illegible]city of 2,000 HP.

WALLA WALAA, WASH.—The general manager of the Northwes[illegible] Corporation has stated that the compa[illegible] will build a 100,000-HP. plant on the [illegible]hutes River, the power to be used f[illegible]ighting and traction purposes, mainly [illegible] latter. The head offices of the Northwe[illegible] Corporation will remain in Portland, W[illegible] Walla being the company's headquarters [illegible] the state of Washington.

SPOKANE, WASH.—Bids [illegible] be received by the Board of Public W[illegible] until Oct. 8, for three 5,000,000-ga[illegible] centrifugal pumps, one 650-HP. horizon[illegible] water wheel, three induction motors, sw[illegible]board and connections.

NORTH YAKIMA, WASH. [illegible]he Yakima Valley Power Co., G. C. Arr[illegible]smith, Supt., has plans in the hands of [illegible] engineer for the new power-house and [illegible]ce building which the company is to er[illegible].

SEATTLE, WASH.—The Se[illegible]le Lighting Co. will extend its mains in th[illegible] district east of Green Lake station, and on [illegible] west side of the lake as far as Mountain View station.

SEATTLE, WASH.—The Board of Public Works has awarded contract f[illegible] furnishing the city with electric incandes[illegible]nt lamps to the FORBES ELECTRICAL [illegible]UPPLY CO. for the ensuing year. The contract will amount to about $40,000.

WASHTUCNA, WASH.—The City Council has awarded contract to A. GILDERSLEEVE to install an electric lighting system, to cost from $5,000 to $6,000. He proposes to furnish seven arc lamps of 2,000 c.-p. for lighting the streets, and to furnish electricity for lighting the town hall and hose house for $624 per year, under a 5-year contract.

SWEETWATER, NEV.—The Walker River Electric Power Co. is planning to install a large electric plant on the East Walker River, near here. Estimated cost, about $750,000. George B. Costigan and Dr. A. L. Pollard, of Denver, Colo., are interested.

PROVO, UTAH.—The Snake Creek Power Co., of Provo, Utah, has applied to the State Engineer for the use of 24 cu. ft. per second of water in Snake Creek, a tributary of the Jordan River, to generate electricity. The length of the diverting canal will be 15,000 ft. and the plant will operate under a head of 720 ft. The company proposes to distribute electricity for lamps and motors in the cities, towns and mining camps of Wasatch County.

*FORT DOUGLAS, UTAH.—Bids are asked by First Lieut. Kenneth P. Williams, Acting Q. M., U. S. A., Fort Douglas, until 10 a. m., Oct. 26, for the construction of an electric lighting system complete.

ST. CATHARINES, ONT.—Plans are being made by the Niagara, St. Catharines & Toronto Ry. Co. to construct a rotary transformer station with an output of 500 KW.

BRIDGES.

(** denotes that this work is advertised in Engineering News.*)

OLDTOWN, MASS.—Bids were opened as follows on Sept. 28 by the State Highway Commission for rebuilding the bridge over the Parker River here: United Construction Co., lAbany, for superstructure, $11,153; for concrete work, $2,350; for borrow, $698; for fence, $360. Total, $14,561. New England Construction Co., Worcester, superstructure, $9,238; concrete work, $1,988; borrow, $1,206; fence, $738. Total, $13,168. H. P. Converse Co., Boston, superstructure, $11,400; concrete work, $2,820; borrow, $1,016; fence, $480. Total, $15,176. William H. Ellis, Boston, superstructure, $13,857; concrete work, $2,115; borrow, $794; fence, $1,920. Total, $18,645.

ST. GEORGE (S. I.), N. Y.—Bids will be received until Oct. 11 by Allen N. Spooner, Comr. Docks and Ferries, New York, for furnishing material and building a steel viaduct between the trolley platform and Jay St., St. George, Richmond Boro.

NEW YORK, N. Y.—Bids were received as follows on Sept. 29 by J. W. Stevenson, Comr. of Bridges, for the construction of drip pans under the Manhattan approach of the Williamsburgh bridge: Akani Construction Co., 215 W. 125th St., $18,675; Eagle Iron Works, 403 E. 117th St., $30,347; John Turl's Sons Co., 70 Cortlandt St., $35,500; Lafferty & Wier, 723 Lexington Ave., $25,485; N. E. Construction Co., 225 Fifth Ave., $25,750; Snare & Triest, 143 Liberty St., $30,490; H. E. Fox, 81 E. 125th St., $29,000; Cooper & Evans, 220 Broadway, $27,477; Charles Meade & Co., $19,620; G. & W. Mfg. Co., $36,660; C. B. Nicholson & Co., 90 West St., $39,300.

MAURICETOWN, N. J.—The Cumberland County Board of Freeholders have awarded contract for repairing the drawbridge over Maurice River to the OWEGO BRIDGE CO., Owego, N. Y., at $9,590.

BEAVER, PA.—The County Commissioners contemplate the construction of a bridge over Beaver River, near Rock Point. Estimated cost, $100,000.

SLATINGTON, PA.—The Commissioners of Lehigh and Northampton Counties on Sept. 10, at Bethlehem, approved plans, it is reported, for a 4-span bridge, 511 ft. long, to be constructed here. Estimated cost, $45,000.

FLOY, VA.—Bids will be received until noon, Oct. 8, by P. St. J. Wilson, State Highway Comr., Richmond, for constructing a steel bridge over Little River at Altizer's Ford, between Floyd and Montgomery Counties, to have two spans, 100 ft. and 70 ft. long, respectively.

DANVILLE, VA.—The citizens on Sept. 28 voted in favor of issuing $100,000 of bonds for bridge across the Dan River and for street improvements.

BARBERTON, OHIO.—The construction of a viaduct over the Erie R. R. tracks at Cornell St. is contemplated. Estimated cost, $65,287. Francis L. Stuart is Ch. Engr., 50 Church St., New York.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., Oct. 13, by the Board of County Commissioners for paving bridge and approaches over Belt Line R. R., on Wooster Pike, in Brooklyn Township. William F. Black is Clk. A. B. Lea is County Surv.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., Oct. 27, by the County Commissioners for the construction of a concrete culvert, Center Ridge road, Rocky River Township. William F. Black is Clk.

FLUSHING, OHIO.—Bids will be received by Roy Cope, County, Audr., St. Clairsville, until 1 p. m., Oct. 25, for furnishing all labor and material necessary to erect one concrete substructure for bridge in Kirkwood Township over Buttermilk Creek, about six miles from here, known as "Buttermilk Bridge No. 2."

INDIANAPOLIS, IND.—The Board of Public Works on Sept. 16 is stated to have opened bids as follows for constructing a bridge over the canal at Indiana Ave.: R. F. Pickens, $9,125; George W. Fife, $10,984; Morris M. Defrees, $12,445; Mansfield Engineering Co., $13,137.

FOWLER, IND.—Bids are asked until 1 p. m., Nov. 4, by the County Commissioners, Lemuel Shipman, County Audr., for the construction of the C. J. Fox Stone road on the county lines between Benton, Jasper and Newton. The work includes bridging and draining. Estimated cost $12,590.

SOUTH BEND, IND.—Bids will be received until Oct. 11 by John W. Harben, County Audr., for constructing 3 flat-top I-beam bridges and wing walls and abutments for repairing two other bridges.

DECATUR, IND.—The construction of a bridge over St. Mary's River, connecting Adams and Allen Counties, is contemplated. Estimated cost, $10,500.

GRAND LEDGE, MICH.—Bids were opened on Sept. 20 as follows by the Common Council for the construction of a bridge, 3-span of reinforced concrete across the Grand River at Bridge St.: Kneal Ryan & Zimmerman, of Lansing, $39,800 for the bridge proper, pavement $2,541 extra; Advance Construction Co., Waterloo, Iowa, $37,600 for the three reinforced arches, no extras; Illinois Bridge Co., Chicago, (a) $44,700, (b) 545,370, (c) $46,370, retaining walls and approaches $18,700 more, paving and walks not included; Lane & Brown, Columbia City, Ind., $33,975 for bridge proper, all extra except paving $22,750; Sterling Engineering & Construction Co., Milwaukee, Wis., $42,300 for bridge proper and retaining walls, on extras $6 per cu. yd. for concrete, $2.25 per sq. yd. for pavement, 10 cts. per sq. ft. for sidewalks and 40 cts. per cu. yd. for filling approaches; George R. Cook, Detroit, $43,800 for bridge without extras; Wyncoop & McGormley Co., Toledo, Ohio, $47,700 without extras, $53,700 for bridge completed and $19,800 more for retaining walls; Huston & Cleveland, Columbus, Ohio, $49,900 for the three spans only; Huron Bridge & Iron Co., Port Huron, $44,600 for bridge complete except paving or $39,800 without any extras. F. B. Whipple is City Clk.

LEMONT, ILL.—The JOLIET STEEL CONSTRUCTION CO., Joliet, Ill., has been awarded contract, at $3,625, for the construction of the concrete arch bridge across Big Run Creek.

COUNCIL BLUFFS, IOWA.—E. A. WICKHAM has been awarded contract by the City Council, at $7,492, for the construction of a concrete bridge over Indian Creek at Eighth St., and JAMES SAGUIN, at $5,500, for the construction of a concrete bridge over Indian Creek at Benton St. List of bidders noted last week.

DUNCAN, NEB.—The NEBRASKA CONSTRUCTION CO., Lincoln, Neb., has been awarded contract, at $11,250, for the construction of the Duncan bridge across the Platte River on the Island.

MISSOULA, MONT.—Contract has been awarded to O. E. PEPPARD, at $8,243, for the construction of two spans of 200 ft. each across the Missoula River at Westfall Spur.

CHICKASHA, OKLA.—Contract has been awarded by the County Commissioners to the MITCHELL PIGG BRIDGE CO., of Weatherford, Tex., for the construction of ten bridges in Grady County, at $12,214. J. B. Saylor is County Engr.

TRENT, WASH.—The County Commissioners on Sept. 10 approved plans of Allan R. Scott, County Engr., for the steel bridge to be constructed over Spokane River at Trent. Estimated cost, about $18,000. The plans provide for a structure 452 ft. long, with main span 200 ft. long.

HOQUIAM, WASH.—The Union Pacific Ry. Co. and the city have decided to build a lift bridge to cost about $225,000 across the Hoquiam River at Simpson Ave.

KALAMA, WASH.—Contract is to be let for a bridge at Castle Rock and a bridge across the Lewis River at Woodland is to be built jointly by Kelso and Clark Counties.

NAPA, CAL.—The following bids have been opened for constructing a bridge over First St., near Chinatown: H. Waring, $16,749; J. B. Newman, $15,765.

REDWOOD CITY, CAL.—Bids are asked until 10 a. m., Oct. 18, by the Board of Supervisors of San Mateo County for constructing a concrete arch culvert on the main county road, First Road District, and for a wooden trestle bridge over first crossing of Pomponia Creek, easterly from San Gregorio and Pescadero road in Fifth Road District. Joseph H. Nash is Clk.

TUOLUMNE, CAL.—Bids were opened on Sept. 14 by the Supervisors for repairing the old Tuolumne bridge near here. The bids were as follows: Western Bridge & Construction Co., $23,000; Cotton Bros. & Co., $18,675; Mervy-Elwell Co., $26,200; Hyde, Harjes & Co., $22,450; PACIFIC CONSTRUCTION CO., 116 California St., San Francisco, three bids, $14,893, $19,873 and $23,750 (awarded contract).

SILVER CITY, IDAHO.—Bids are asked until 10 a. m., Oct. 13, by J. S. St. Clair, Clk. Bd. County Comrs., for the construction of a bridge in Bruneau Valley, across Dry Creek.

BUILDINGS.

AUGUSTA, ME.—Bids are asked by Charles S. Hichborn, Chn. of Comn. on Alterations of the State House at Augusta until 10 a. m., Oct. 28, for doing the work in accordance with the plans and specifications prepared by G. Henri Desmond, Arch., 15 Beacon St., Boston, and approved by the Commission. Separate bids are desired for electric wiring, heating and ventilating, plumbing, and elevators; all the balance of the work will be covered in the general contract, for which, also, bids are desired, except that separate bids are invited for the granite work, which may be let separately or may be incorporated into the bid of the general contractor, as the Commission may determine.

NORTH ADAMS, MASS.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Nov. 4, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at North Adams.

BUFFALO, N. Y.—Robert J. Reidpath, Arch., Builders' Exchange, is preparing plans for wholesale grocery fireproof warehouse, five stories, 80 × 100 ft., of brick and steel or reinforced concrete (fireproof) to be erected at the corner of Perry and Illinois Sts., by the S. M. Flickinger Co., S. M. Flickinger, Pres., 110-116 Michigan St.

The St. Stephens Evangelical Church Society, Rev. Gustave Reuckert, Pastor, 308 Adams St., will build a church of stone and brick at the corner of Peckham and Adams Sts. Plans are in preparation.

NEW YORK, N. Y.—Bids are asked by Nicholas J. Hayes, Fire Comr., until 10.30 a. m., Oct. 20, for furnishing all the labor and materials required for the completion of new annex and additions and alterations to the present fire headquarters building located on East 68th and East 67th Sts., between Lexington and Third Aves., Boro. of Manhattan.

George B. Post & Sons, 341 Fifth Ave., have awarded a number of the sub-contracts for the 334 Fourth Ave. building at the southwest corner of Fourth Ave. and 25th St., as follows: Plumbing, THOMAS SWAIN, 452 Fourth Ave.; iron, RICHEY, BROWN & DONALD; steel, POST & McCORD, 44 East 23d St.; electric wiring, L. K. COMSTOCK, 50 Church St.; granite, J. E. DUTTON; excavating, CLARENCE L. SMITH; waterproofing, the T. NEW MFG. CO.; terra cotta, furring, partition blocks, etc., THE NATIONAL FIREPROOFING CO., and concrete slabs, The WHITE FIREPROOFING CO.

At the Building Bureau plans have been filed for a 4-story structure for the Institute of Musical Art of the City of New York, 53 Fifth Ave., Frank Damrosch, Director, to be built at the northeast corner of Claremont Ave. and 122d St. It is to be of Florentine design, with facades of brick and limestone, crowned with a large mansard. The avenue frontage will be 100 ft., and there will be a central entrance opening upon a staircase hall, with an assembly chamber and a reception parlor on one side and the directors' room and offices on the other. An oval-shaped room for the alumnae in the rear of the basement story will be one of a group of apartments on that floor fitted as music rooms, a circulating library and chambers for the instructors. There will be additional rooms for instructors and students in the second and third floors, and a lunch room in the fourth. The building is to cost $225,000. MARC EIDLITZ & SON, 489 Fifth Ave., have secured the general contract, and it is expected that work will be completed by July, 1910. Donn Barber, 24 East 23d St., is Arch.

NEW YORK, N. Y.—The Forty-Third St. Building Co., to be organized at once, with a capital of $1,200,000, will begin within the next 60 days the erection of a 12-story office building and theater on the Fitzgerald holdings at the southeast corner of Broadway and 43d St. The syndicate that will erect the building consists of Frank R. Tate, Theatrical Mgr. of St. Louis, Mo., associated with clients of Herbert T. Jennings, of 204 Broadway, this city. Plans have been prepared by George Keister, Arch., of 12 West 31st St., for a building with two tiers below the level of the street, covering the entire Broadway frontage and extending back about 90 ft. in 43d St. A theater building will occupy the rear of the plot in 43d St., fronting in that street. The design for the exterior will be classic Renaissance. The business and office structure on Broadway will have three stories of white granite and limestone, and above that will be semi-glazed, tool-faced and white terra-cotta. The theater front will be of the same materials as the Broadway front, with a similar facade, crowned with a classic cornice and balustrade. The main entrance to both theater and office building will be the the southerly end on Broadway, with a spacious entrance vestibule to both, and a separate lobby for each. The lessees have let the contract for the construction of the building to the C. L. GRAY CONSTRUCTION CO., 42 Broadway. The cost is estimated approximately at $1,050,000.

Brill Bros. will build a 10-story store on the northwest corner of Broadway and 49th St. They have acquired the 125 × 103-ft. site under a 21-year lease, with renewals at $40,000 a year from Archibald D. Russell and Percy R. Pyne. It is the Old Guard armory parcel. The new structure will be the headquarters of all the Brill stores.

NEW YORK, N. Y.—Bids are asked by William F. Baker, Police Comr., until 10 a. m., Oct. 15, for completing alterations, general repairs and improvements to the 77th Precinct police station house, situated at the northwest corner of City Island Ave. and Orchard St., City Island, Boro. of the Bronx, City of New York.

The following bids were received by the Department of Public Charities on Sept. 28, for the erection and completion of an annex on the west side of main building, Kings County Hospital, Boro. of Brooklyn: George Vassar's Sons & Co., 1170 Broadway, New York, $137,500; Albert Winternitx, 237 East 72d St., New York, $139,000; George Hildebrand, 38 Park Row, New York, $144,300; Louis Wathsler, $149,800; J. F. Walsh Construction Co., $139,900; Ormond & O'Brien, $144,695; P. J. Collin, $142,275; Thomas B. Leahy Building Co., $143,247; Clark & Stowe, 41st St., near Second Ave., $137,600; Thomas McKeown, 103 Park Ave., New York, $146,700; Thomas J. Buckley Construction Co., $157,500; Swift Building Co., $149,700; John Kennedy Co., $137,757; Charles H. Peckworth, 415 Hudson St., New York, $144,279; Luke A. Burke & Sons, 25 West 42d St., New York, $144,900; James McArthur, $173,743; United Plumbing & Construction Co., $144,896; Bottsford Dickinson Co., 1170 Broadway, New York, $146,911; George F. Driscoll, $137,998.

NEW YORK, N. Y.—Bids were received by Allen N. Spooner, Comr. of Docks and Ferries, on Oct. 4, for furnishing all the labor and materials required for preparing for and building a new steel freight shed with appurtenances on the pier between 31st and 32d Sts., in the Boro. of Brooklyn, to be known as the 31st St. Pier Shed: Charles Meads & Co., 299 Broadway, New York, $155,500; H. R. Wheeler, $186,750; McHarg Barton Co., 165 Broadway, New York, $164,300; Cooper & Evans Co. & Grant Rearer, 220 Broadway, New York, $169,273; George Hildebrand, 38 Park Row, New York, $189,400; Snare & Triest, 143 Liberty St., New York, $158,335; Northeastern Construction Co., 225 Fifth Ave., New York, $173,600; Pennsylvania Steel Co., 71 Broadway, New York, $178,280.

SYRACUSE, N. Y.—Rev. James P. Magee, Rector of St. Patrick's Roman Catholic Church, 209 Schuyler St., has let the general contract to DELIMONICO BROS., 901 Danforth St., for erection of St. Patrick's school building on Schuyler St. It will be of brick, semi-fireproof, three stories high, containing eight rooms and a hall with stage. Cost, $50,000. Norrick & Randall, 705 S. A. & K. Block, Syracuse, are Archs.

NEWARK, N. J.—J. Hyman Rosensohn, Arch., 785 Broad St., Newark, has plans for a 4-story brick apartment house that will be erected at Mount Prospect and Bloomfield Aves. by the Progressive Investment Co. The exterior will be trimmed in limestone. There will be a store on the first floor, facing Bloomfield Ave. These apartments will include steam heat and electric light. The estimated cost is $65,000.

CAMDEN, N. J.—The Board of Health has appointed Dr. Marcus K. Mines, Dr. H. H. Davis and Reuben H. Gaskill a special committee to look after the plans for a $100,000 municipal hospital building. It is probable that a bacteriological laboratory will be installed. The City Council has already purchased a site near Woodlynne, but provision has been made for a building to cost $50,000. This the Board considers inadequate for the needs of the city.

POTTSTOWN, PA.—Stetler & Mengel, Archs., Wyomissing, Pa., have furnished plans for the Auchenbach apartment house to be built at Pottstown, by Frank Auchenbach. The contract has been let to FRED. H. KELSER, of Pottstown. The plans call for a model apartment structure, constructed of dark iron-spotted brick with trimmings of Indiana limestone and Woodstock granite. The structure, which will be four stories in height, will be equipped with a steam plant, elevator in fire tower, tiled hallways, marble wainscoting, etc. The first floor will be partly occupied by a model store room, 42 × 65 ft. in dimensions. Thirteen family apartments will be arranged, each having a bath, kitchen, laundry, etc. The top floor will be divided into 15 bachelor apartments, with shower baths, etc.

PITTSBURG, PA.—A permit has been issued to the Western Pennsylvania Institute for the Blind for the construction of a 3-story brick kindergarten on Bellefield Ave., near Center Ave., Fourth Ward.

D. B. Oliver has been granted a permit for the construction of twelve 2-story and attic brick houses on Antietam St., 27th Ward.

The contract for the erection of the garage of the E. J. Thompson Co. in new Louisa St., opposite Forbes Field, has been let to the REINFORCED CONCRETE CONSTRUCTION CO., Fulton Bldg., Pittsburg. The building will be 75 × 100 ft., four stories high, and will cost $40,000.

Plans have been completed and approved, bids are being received and the contract will be let soon for the $100,000 Irene Kaufmann Settlement Building, to be erected on the grounds of Columbian School and Settlement, 1835 Center Ave. The proposed building will have four stories and a basement. It will be electrically lighted throughout, and will have an elevator and a vacuum cleaner. The basement will be given over to the nurses' office, a dispensary, diet kitchen, printing shop, manual training room, smoking room, laundry and heating and ventilating plant. The Executive Board of the Irene Kaufmann Settlement is composed of Nathaniel Spear, Pres.; Isaac W. Frenk, Vice-Pres.; A. J. Sunstein, Treas.; Miss Minnie Affelder, Secy.; Philip Hamburger, Charles Dreifus, Mrs. H. B. Ferguson, Mrs. Aaron Cohen, Benjamin Hirshfield, Judge Josiah Cohen, Mrs. Hugo Rosenberg, Morris Baer, Max Blum, Joseph Stadtfeld and Mrs. Izaak Wilbderg. Ex-officio, Mrs. Enoch Rauh; honorary members, Mr. and Mrs. Henry Kaufmann, Rev. J. Leonard Levy, D. D.

A permit has been issued for the construction of the proposed new St. Joseph's Hospital and Dispensary at 2117 Carson St., Southside. The cost of the structure is estimated at $110,000. John T. Comes is Arch., 1005 Fifth Ave., Pittsburg. The building takes the place of the old hospital, which was razed about a year ago. It will cover 60 × 120 ft., will be five stories high, of brick, will be fireproof, and have accommodations for about 100 beds. Funds for the purpose have been raised by the Sisters of St. Joseph. The hospital at present is located at 2115 Carson St.

PHILADELPHIA, PA.—A company has been formed to build a 15-story flat house, modeled after the flat houses of Paris, on the lot on the west side of 13th St., below Spruce St. and owned by Frank Mauran. The lot has a frontage of 57 ft. 6 ins. on 13th St., with a depth of 250 ft. to Juniper St. The building, which it is proposed to erect, has been designed by Cope & Stewardson, 320 Walnut St. It will be fireproof, divided into 60 suites of housekeeping apartments. Each flat will have four bedrooms, two baths, dining room, living room, pantry, maid's room and kitchen. The ground floor will be divided into ladies' and gentlemen's reception rooms. A barber shop, ladies' hair-dressing rooms, extra servants' rooms and a caterer's kitchen will occupy the basement. The cost of the building, which will be of ornamental design, will be about $500,000.

DOVER, DEL.—Of 14 competing architects, E. L. Tilton, 32 Broadway, New York, has been awarded first prize and engaged as the state's architect by the State Capitol Building Commission. The plans provide for a modern and spacious fireproof library building. Second, third and fourth prizes were won by J. D. Thompson, Jr., Norman Harris and Bissell & Sinkler. Work on the administration building will be started at once probably.

*FORT DU PONT (Delaware City post-office), DEL.—Bids are asked by the Constructing Quartermaster, Fort Du Pont, until 11 a. m., Nov. 5, for construction (including plumbing, steam and hot air heating, electric wiring and fixtures) of one quarters for field officer, one single set of quarters for company officer, and one double set of quarters for company officers, brick; and two double sets quarters for N. C. officers, frame, at Fort Du Pont, Del.

BALTIMORE, MD.—The NOEL CONSTRUCTION CO., German and Calvert Sts., Baltimore, have been awarded the contract for the construction of the Harriet Lane Memorial Home for Crippled Children, to be erected in connection with the Johns Hopkins Hospital, at a cost of about $200,000. Application for starting the work of building has been made at the Building Inspector's Office. Plans for the structure were made by Wyatt & Nolting, Archs., Keyser Bldg., Baltimore. It will front on the Jefferson St. side of the grounds and will be 65 × 133 ft. The building will be a 5-story-and-basement structure with a large 1-story pavilion around it. Fireproof material is to be used throughout, and the rooms and areaways will be large and well ventilated. The style of architecture will correspond with the other buildings of the hospital group. Steam will be used for heating. The work of construction will commence in a few days. Noted fully on Sept. 23.

WASHINGTON, D. C.—Bids were received as follows by the Secretary of the Interior for the construction of a wing to the Freedman's Hospital, Washington: Thomas H. Melton, Washington, $71,421; H. Probst, New York, $68,593; Page Construction Co., Washington, $68,000; Boyle-Robinson Construction Co., Washington, $68,983; Gormley-Boynton Co., $77,600; Cramp & Co., Philadelphia, $74,727; W. P. Lipscomb, Washington, $70,577; W. H. McCray, Washington, $69,446; Oscawana Building Co., New York, $69,700; Newport Constructing & Engineering Co., Inc., Newport News, Va., $84,234; George W. Wyne, Washington, $70,300; David M. Andrews Co., Baltimore, $69,555.

FREDERICKSBURG, VA.—Bids were received as follows on Oct. 4 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Fredericksburg, Va.: Fancher & Driscoll, Canastota, New York, $53,900; Newport Construction & Engineering Co., Inc., Newport News, Va., $59,844; D. J. Phipps, Newport News, Va., $52,775; Jones & Adams, Lynchburg, Va., $59,970; James Seay & Co., Petersburg, Va., $52,800; Wm. M. Seay & Co., Lynchburg, $50,914; E. G. Heflin, Fredericksburg, Va., $49,900; Ambrose B. Stannard, St. James Bldg., New York, $49,600. Time, Nov. 1, 1910.

ATLANTA, GA.—At the corner of Fairlie, Cone and James Sts. four adjoining garages will be built, each having four floors. They will occupy the entire block. The cost of the entire building will be $80,000. It is being erected by the owner of the site, John W. Grant, who will lease the structure to automobile concerns. The structure is to be of pressed brick and modern improvements will be installed. Each garage will have plate glass fronts arranged for show rooms. The contract for the erection of the structure has been given to W. H. GEORGE. The first work will be commenced at once.

MEMPHIS, TENN.—The Memphis Union Station Co. has filed articles of incorporation, with a nominal capital stock of $100,000. It proposes to proceed immediately with the erection of a union station which is to be used by five of the roads entering Memphis and which is to cost between $2,000,000 and $3,000,000, according to the number of roads

that make use of the new terminals. The roads that are certain to participate in the building and use the new terminals are: Louisville & Nashville, Nashville, Chattanooga & St. Louis, St. Louis Southwestern, St. Louis, Iron Mountain & Southern and the Southern Railway. J. L. Lancaster, Pres. of the Union Ry. Co., is to be president of the Memphis Union Station Co. The new station will be close to the present Union Station near Calhoun St. and Rayburn Ave.

TOLEDO, OHIO.—It has been announced by Gen. C. M. Spitzer that he has decided to erect the "Doctors'" building, between Tenth and Eleventh Sts., and that Bacon & Huber, Archs., Spitzer Bldg., Toledo, have begun work on the plans. The contract is to be awarded this fall. The building will have a frontage on Madison Ave. of 200 ft., with an 85-ft. depth on Tenth and Eleventh Sts. It will be five stories and cost about $150,000. The first floor will contain 16 shops, 15 × 50 ft., and the second, third, fourth and fifth floors will be divided into suites of two to seven rooms. The building is to be hot water heated, lighted by electricity and will have every convenience necessary for physicians, surgeons, dentists and specialists. The structure is to be built of brick, concrete and fireproofing, with an exterior of pressed brick and terra cotta. The interior will be finished in antique oak. Bacon and Huber expect to have the plans ready for bids in two or three weeks.

EVANSVILLE, IND.—Steps have been taken toward the erection of a colosseum to cost about $200,000. W. F. Wunderlick, is City Clerk.

SPENCER, IND.—We are officially advised that bids were received by the Commissioners of Owen County Sept. 30 for the construction of a court-house. The contract has been let to C. KAUZLER & SON, of Evansville, Ind., at $76,995. The structure will have four stories, will be 88 × 108 ft. Estimated cost, $100,000; equipment, $20,000. It will be fireproof and constructed of stone, brick and concrete. J. T. Johnson & Co., 1212 State Life Bldg., Indianapolis, Ind., are Archs.

INDIANAPOLIS, IND.—Bids are asked by H. C. Schroeder, Township Trustee, until Oct. 15 for the construction of an 8-room school building in Norwood.

The Maxwell-Brisco Motor Co. has ordered plans on which bids will be submitted for the construction of a sales and office building at the corner of Vermont and Illinois Sts. Estimated cost, $60,000.

Bids will be receiced until 10 a. m., Oct. 15, at Room 54, State House, for the complete installation of mechanical equipment, including boilers, stokers, heaters, pumps, generators, switchboard, refrigeration machinery, etc., in the new Deaf and Dumb building; also for the erection of one brick storehouse and one cold storage plant and for laying 40,000 ft. of concrete floors. James Bingham is Secy.

CHICAGO, ILL.—Brage Lodge, No. 2, Independent Order of Vikings, will erect a $50,000 clubhouse at the southeast corner of Sheffield Ave. and School St. The building will be a 3-story structure, 50 × 125 ft. There will be stores on the ground floor and lodge halls and a well equipped gymnasium on the two upper floors. The members of the lodge, in order to finance the building, have incorporated as the Brage Club. Oscar Haugen is Trustee.

CEDAR RAPIDS, IOWA.—We are officially advised that BARTLETT & KLING, general contractors, Cedar Rapids, are ready to let sub-contracts for plumbing, heating, electric wiring, plastering and terrazzo work on the 6-story fireproof office building which they are constructing in this city.

HIBBING, MINN.—Olin H. Round, Arch., Essex Bldg., St. Paul, Minn., has awarded the contract for a pressed brick and cut stone theatre, to be built here for the United Theatre Construction Co., John A. Healy, Pres., to MATT LEITHAUSER, St. Paul, Minn. It will have a seating capacity of 900, will measure 40 × 100 ft., and will have steam heating, and electric lighting. Smoking rooms are included in the plans, as well as an asbestos fireproof curtain.

ST. PAUL, MINN.—George E. Lennon, Seventh and Wabasha Sts., city, contemplates building a pressed brick and cut stone fireproof theater at Seventh and Wabasha Sts. A proposition has been made by him to the Board of Library Directors, under whom Mr. Lennon would obtain a lease on the property on which the playhouse would be built. The property is owned by the Library Board.

The contract has been awarded to CLARK & McCORMACK, city, for furnishing the granite for the exterior of the proposed $2,000,000 Roman Catholic Cathedral being built at Selby, Summit and Dayton Aves. This contract does not include setting the granite for the dome, which will not be let until the fall of 1910. The value of the contract is stated to be $600,000. E. L. Masqueray, Arch., is working out the interior details of the cathedral.

HELENA, MONT.—Bids are asked by the State Board of Examiners, A. N. Yoder, Secy., State Capitol, until 2 p. m., Nov. 10, for furnishing all labor, materials and equipment necessary to complete additions to and alterations in the State Capitol building at Helena. Plans and specifications may be seen at the offices of F. M. Andrews & Co., Archs., Waldorf-Astoria Hotel, New York; of Haire & Link, Archs., Power Block, Helena, Mont.; of Haire & Link, Archs., State Savings Bank Bldg., Butte, Mont.; of the State Board of Examiners in the Capitol Building, Helena. Noted last week.

GREAT FALLS, MONT.—Bids were received as follows on Sept. 29 by James Knox Taylor, Superv. Arch., cr the Treasury Dept., Washington, D. C., for the construction of the post-office at Great Falls, Mont.: J. H. Wiese, South Omaha, Neb., $244,750; W. J. Hoy, St. Paul, Minn., 257,961; Gagnor & Co., Billings, Mont., $257,231; J. W. Miller, St. Paul, Minn., $223,989. Time, April 1, 1911.

ST. LOUIS, MO.—A plan by which an additional 100 rooms is to be added to the new Maryland Hotel, at the northwest corner of Pine and Ninth Sts., is being considered and probably will be carried out soon. It is proposed to add four stories to the hotel, which would make it 12 stories in all and give it about 375 rooms, where it now has about 260. The cost of the proposed improvement would reach about $150,000. The hotel is owned by the Rajaw Realty Co., a holding corporation of the Kilgen-Rule Real Estate Co., 713 Chestnut St., and is under lease to the McTague Catering Co. At the time the hotel was built provision for expansion was made by building foundations that would admit of four extra stories being added. There is no possibility of building ground additions. The hotel is bounded on the north by the Frisco Building, while to the west of it is the 6-story building recently erected by the Altoona Investment Co. A. O. Rule is Pres. of the Kilger-Rule Real Estate Co.

FULTON, MO.—We are officially advised that it is proposed to rebuild the main building of the Westminster College at Fulton which was burned recently. Among the members of the Board of Trustees are: John F. Green, Rialto Bldg.; George T. Coxhead, T. S. McPheeters, Rev. S. J. Nicolls, S. J. Fisher, C. MaC. Thompson, Rev. W. J. McKittrick, Rev. J. F. Cannon, B. F. Edwards, John A. Holmes, Judge Selden P. Spencer, Commonwealth Trust Bldg., and Rev. H. H. Gregg, all of St. Louis, Mo. The structures will be four in number, non-fireproof and three stories high. They will be constructed of brick. Bids will be received in about 60 days. No architect has been selected. Estimated cost, $150,000.

FORT SAM HOUSTON, TEX.—Bids are asked by Tilman Campbell, Constr. Q. M., until 11 a. m., Oct. 23, for the construction, etc., at this post of one double set of hospital sergeants' quarters, one ordnance storehouse, and paddock fences and picket lines for veterinary stable.

CORSICANA, TEX.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at Corsicana, Tex., to the KING LUMBER CO., Charlottesville, Va., at $67,870. Time to complete, Dec. 1, 1910.

DENISON, TEX.—Bids were received as follows on Oct. 1 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Denison, Tex.: Felt & Ainsworth, Waco, Tex., $74,800; John Bardon, Fort Worth, Tex., $74,800; M. Yeager & Co., Danville, Ill., $78,250; L. R. Wright, Dallas, Tex., $82,800. Time, Nov. 1, 1910.

CHILOCCO, OKLA.—Bids are asked by John R. Wise, Supt. Indian School, Chilocco, until 2 p. m., Oct. 18, for furnishing and delivering at the school, as required during the fiscal year ending June 30, 1910, about 11,000 ft. stonework, 7,000 ft. concrete work, 3,200 sq. yds. plastering, cutting 53,000 ft. of stone, laying 20,000 sq. ft. wall, about 108,000 ft. lumber, 120 windows and doors, 2,400 ft. radiation, and a quantity of pipe valves, fittings, builders' hardware, etc., all as per list and specifications obtainable at the school.

DENVER, COLO.—The Colorado State Museum Society has accepted plans for its new building, estimated cost $100,000, and bids will be asked for soon.

SPOKANE, WASH.—Plans have been drawn by E. W. Houghton, Collins Bldg., Seattle, for the $200,000 Shubert theater to be erected here. Charles H. Huehlman, former manager of the Spokane Theatre, will manage the new house. Contracts will be let soon.

The Imperial Investment Co. has bought a site 80 × 110 ft. at the southwest corner of First Ave. and Cedar St., which will be improved with a 4-story building costing $50,000. The ground was bought from James Cronin and Charles Theis for $38,000. C. F. Clough & Co. made the sale. Andrew Laidlaw is principal owner and manager of the Imperial Investment Co. The property bought is described as Lots 1 and 2, Block 14, Browne's Addition. The corner lot is 32 ft. wide and the inside lot is 32 ft. wide. The average depth is 110 ft. Plans are being drawn for the building, which is to occupy the entire site. There will be stores on the first floor and about 100 rooms in the three upper stories. The building will be steam heated and all the rooms will have hot and cold water and large closets.

ABERDEEN, WASH.—Andrew Peterson, head of the Aberdeen Construction Co., has announced that he and his associates will begin in the spring the construction of a 6-story hotel building.

NORTH YAKIMA, WASH.—St. Elizabeth's Hospital is to be replaced by one to cost $125,000.

E. Wockman, Arch., has made a number of changes in the plans for the proposed city-hall. The plans now make provision for all the city offices and departments. The building is estimated to cost $50,000.

EVERETT, WASH.—The County Commissioners contemplate rebuilding of the old court-house rather than to construct a new building. Remodeling and rebuilding the old structure would cost about $50,000.

SEATTLE, WASH.—We are officially advised that work has been started razing the building on the west side of Western Ave., between Marion and Madison Sts., preparatory to the erection of a 6-story building, by the Pacific Warehouse Co., 1017 Western Ave., to cost $200,000. The STONE & WEBSTER ENGINEERING CORPORATION, 147 Milk St., Boston, Mass., is general contractor. S. A. Hull is Secy.

The Jackson Estate will erect a 5-story brick apartment building to cost $60,000.

Plans have just been completed by the Capital Building Co., which is represented by the J. D. Johnson Co., to erect an 8-story steel and brick office building, to cost $100,000.

PORTLAND, ORE.—Bennes, Hendricks & Tobey, 67 Laboe Bldg., have prepared plans for the Page Investment Co. for a 3-story apartment building, to be erected at a cost of $45,000.

Plans have been prepared for an apartment building to be erected by McKinley Mitchell, 202½ Stark St., at a cost of about $40,000.

Excavation has been completed and concrete work will begin for the proposed Eilers Bldg., at 15th and Pettygrove Sts. The total cost will be $65,000.

Friendly & Rossenthal will erect a 5-story brick structure at the southeast corner of Seventh and Jefferson Sts., to cost $100,000.

The Dammier Investment Co., Raleigh Bldg., have plans prepared for a 4-story brick building, to be erected on the northeast corner of Eleventh and Hall Sts. The cost will be $65,000.

SAN FRANCISCO, CAL.—We are officially advised that the structure to be erected for the Sheridan-Proctor Co., Inc., on the southeast corner of Jones and O'Farrell Sts., will cost $75,000, exclusive of the cost of the land. Sutton & Weeks, Archs., Mutual Bank Bldg., have completed the plans and drawings. The building will be of brick, faced with Le Farge cement. It will be five stories high, and is designed for an apartment house. The frontage is 37.6 ft. in O'Farrell St. and 122.6 ft. in Jones St., and there is an "L" 22.6 × 47.6 ft. The material for the exterior is brick. The contract has been let to LANGE & BERGSTROM, 787 Market St., San Francisco.

The City Architect has prepared the plans for the Denman public school, which will stand in Pierce St., between Fell and Hayes Sts. The structure will cost $160,000. The site is opposite Alamo Sq. The ground upon which the building will stand is 275 × 137.6 ft. The schoolhouse will face west. It will be fireproof, of steel frame, the exterior to be finished with pressed brick and terra cotta. All the floors and staircases will be of reinforced concrete. The partitions will be of hollow tiles. There will be accommodations for 720 pupils. The basement, or ground story, will contain the assembly room, heating and ventilating rooms, two special classrooms, one of which will be devoted to the study of domestic science. The first floor will contain eight classrooms, ranged along a central corridor, to be entered from the outside at either end. Two stairways will be screened from the corridors by fireproof doors. On this floor will be the principal's room and teachers' rooms. The upper story will contain eight classrooms, teachers' lunchroom and retiring room. All classrooms in the building will have coat rooms and will be equipped with electrical bells, telephones, electrical clocks, etc. The interior finish will be of quarter sawed oak. There will be standpipes and hose reels on each floor and a separate water system to supply filtered water for drinking. The building will be heated and ventilated by the Plenum system and will be equipped with a vacuum cleaning apparatus. The yard surrounding the building will be entered at the corner of Hayes and Pierce Sts. at the level of the sidewalk. From Fell St. the yard will be reached by steps and a concrete walk, winding through grassed terraces.

The plans that were received from Bodley & Hare, English Archs., for the Protestant Episcopal Cathedral, to be erected on the block formerly occupied by the Charles Crocker and W. H. Crocker homes on Nob Hill, are to be modified to meet local conditions in some respects, but they will be used in most regards as they have been prepared. The length of the cathedral will be 275 ft. The height will be 152 ft. The greatest width of the cathedral will be 200 ft. The framework will be of steel. Inside and out the finish will be stone. The drawings of the crypt are now in the hands of L. P. Hobart, Arch., Crocker Bldg., San Francisco. As soon as they are completed construction will begin. The general effect of the structure will be that of an old English cathedral with a main central octagonal tower. When it is completed the cathedral will give seating accommodations to 2,000.

SACRAMENTO, CAL.—The Chamber of Commerce Building Association has instructed its board of directors to take the necessary steps toward the erection of a $180,000 Class A, 8-story building, to be erected on its property on Seventh St., between I and J Sts., which was recently destroyed by fire. The plans will give the Chamber of Commerce an auditorium on the second floor sufficient to seat 500 persons. Ample room will be provided for the Chamber of Commerce offices and exhibit rooms, while the balance of the building will be devoted to offices. The ground floor will be rented to stores. D. W. Carmichael is Pres. of the Chamber of Commerce.

SANTA MONICA, CAL.—H. X. Goetz has prepared plans for a concrete hotel, which it is proposed to erect at the corner of Ocean Ave. and Mantana and Second Sts., at a cost of $150,000.

LOS ANGELES, CAL.—A permit has been issued to the Consolidated Realty Co. to add four additional stories to the building owned by it at 400 West Sixth St. and also facing on South Hill St. The cost of the addition will be $163,000. Harrison Albright is Arch., Laughlin Bldg., and WEYMOUTH CROWELL, Pacific Electric Bldg., the contractor. The present 2-story building was completed several months ago in such a manner that the new stories could be added. The building will be used for office purposes.

SALT LAKE, UTAH.—The Denver & Rio Grande Ry. Co. has taken out a permit for the erection of a 2-story brick passenger depot, on Fourth West St., between Second and Third South Sts., to cost $400,000.

J. P. Megeath has taken out a permit for the erection of a store, hotel and theater building, to cost approximately $150,000.

WATER SUPPLY—IRRIGATION.

(* *denotes that this work is advertised in Engineering News.*)

NEW BRITAIN, CONN.—Contract has been awarded by the Water Board to the HARTFORD PAVING & CONSTRUCTION CO., Hartford, at $8,530, for raising the dam at Shuttle Meadow. List of bidders noted on Sept. 23. P. T. Eagan is Clk.

*MIDDLETOWN, CONN.—Bids are asked by the Board of Trustees of the Connecticut Hospital for the Insane until 10 a. m., Oct. 13, for furnishing 4,900 ft. of 16-in. c.-i. water mains, 125 lbs. per ft., 2,400 ft., 144 lbs., and 14,860 lbs. of lead for joints.

LYONS, N. Y.—We are officially advised that W. T. BURNS & CO., 307-315 Van Buren St., Syracuse, N. Y., have been awarded contract for the construction of a pump house, water-line, erection of boilers and turban foundations for the Rochester, Syracuse & Eastern R. R. Co. here, at $30,000.

PIKE, N. Y.—The citizens voted on Sept. 21 in favor of constructing water-works.

*NEW YORK, N. Y.—Bids are asked by the Board of Water Supply until 11 a. m., Oct. 20, for the construction of portions of Croton and Kensico divisions of the Catskill aqueduct.

*NEW YORK, N. Y.—Bids are asked by John H. O'Brien, Comr. Water Supply, Gas and Electricity, until Oct. 13, for furnishing, delivering and laying high pressure fire service mains and appurtenances in 17th, 18th, 19th, 20th, 21st and 22d Sts.

LODI, N. J.—Bids were received as follows by the Borough Council for constructing the new water plant on Sept 27, as follows: W. P. Partridge & Co., Scranton, Pa., $33,418; B. G. Coon Construction Co., Wilkes-Barre, $36,724; F. M. McLeod, New York, $39,833; McCay Engineering Co., Baltimore, $40,032; Frederick N. Lewis, New York, $40,284; Harrison Construction Co., Newark, $40,958; Norcross & Edmunds, Philadelphia, $40,294; Joseph Murphy & Son, West Hoboken, $42,585; J. C. Tierney, Hoboken, $43,273; Ernest Abraham, Hackensack, $43,608; Joseph Puglia, Paterson, $45,968; Eldridge & Grannis, Ossining, N. Y., $46,596; P. J. Heagney, Weehawken, $47,820; Joseph Valenti & Co., Orange, $50,400; Richard H. Kernan, South Orange, $52,785; Dominick Bonacci, Brooklyn, $53,858.

CAMDEN, N. J.—Bids will be received at the water office until 8 p. m., Oct. 20, for reslating the roof at the Morris pumping station, for the Camden Water Department. John S. Broome is Chn. Water Com.

PITTSBURG, PA.—Bids will be received until Oct. 20 by Joseph G. Armstrong, Dir. Pub. Wks., for furnishing and installing two 7,000,000-gallon pumping engines in the pumping station on Mission St., Southside.

BRADFORD, PA.—The following are the bids opened on Sept. 20 for the enlargement of No. 2 reservoir: (a) W. W. Construction Co., Franklin; (b) Peter Pascuzzi, Kane; (c) Rizzuti & Chiodo, Bradford; (d) Kuhn & Applegate, Bradford: 32 acres clearing and grubbing, (a) $80, (b) $256, (c) $162, (d) $150; 3,000 cu. yds. excavation in trench, (a) 55 cts., (b) 47 cts., (c) 42 cts., (d) $1.50; 52,030 cu. yds. excavation for embankment, (a) 39 cts., (b) 33⅓ cts., (c) 42 cts., (d) 43 cts.; stripping per cu. yd., (a) 32 cts., (b) 41 cts., (c) 35 cts., (d) 50 cts.; 4,734 cu. yds. masonry, coursed stone, (a) $6.50, (b) $5.75, (c) $6.49, (d) $6.25; 622 cu. yds. plain concrete, (a) $7, (b) $6, (c) $6.49, (d) $8.50; 98 cu. yds. reinforced concrete, including steel, (a) $14, (b) $12.10, (c) $10.80, (d) $15; 3,980 sq. yds. rip rap paving, 12 ins. thick, (a) 85 cts., (b) 98 cts., (c) $1.51, (d) $1.65; 216 lin. ft. 20-in. c.-i. pipe, (a) $3.80, (b) $4.60, (c) $3.60, (d) $4; 4.2 tons 20-in. c.-i. specials, (a) $75, (b) $92, (c) $28, (d) $75; one gate house bridge, (a) $234, (b) $210, (c) $187.50, (d) $225; one spillway bridge, (a) $350, (b) $347, (c) $245, (d) $225; one brick gate house, 10 × 8.5 × 9, (a) $260, (b) $122, (c) $297.60, (d) $500.

TITUSVILLE, PA.—Bids will be received by the city until Nov. 4 for furnishing 1,500 ft. of standard 6-in. c.-i. water pipe f. o. b. Titusville, subject to inspection and approval of Water and Light Committee and Water Superintendent; also separate proposal for furnishing one 3-way fire hydrant with steamer connections f. o. b. Titusville.

CONWAY, PA.—Bids will be received by the Town Council until 8 p. m., Oct. 11, for furnishing materials and construction of a water-works system. James P. Leaf, New Brighton St., Rochester, Pa., is Engr.

RICHMOND, VA.—Contracts for water supplies, bids opened on Sept. 16 by the Water Department, have been awarded as follows: Gates valves and pig lead to H. B. FRISCHKORN; fire hydrants, to SMITH-COURTNEY CO., GLAMORGAN PIPE & FOUNDRY CO., and to CHAPMAN VALVE MFG. CO.; pig lead to the SOUTHERN RY. SUPPLY CO.; lead pipe to VIRGINIA-CAROLINA SUPPLY CO.; c.-i. pipe to GLAMORGAN PIPE & FOUNDRY CO., and valve boxes to the RICHMOND IRON WORKS. I. L. Horner is Clk.

NORFOLK, VA.—The Board of Control has awarded contract to the JAMES ROBERTSON MFG. CO., 6 East Lexington St., Baltimore, Md., for furnishing 11,400 lbs. of lead pipe to the Water Department at $5.15 per 100 ft.

CLARKSBURG, W. VA.—The citizens on Sept. 14 voted in favor of issuing $270,000 of bonds for improving the water-works, sewerage and streets. D. D. Britt, of Clarksburg, is Engr. W. H. H. Cole is City Clk.

ENSLEY, ALA.—The Tennessee Coal, Iron & R. R. Co., George C. Cranford, Pres., plans the construction of a reservoir five miles long for a water supply and of the installation of a by-product coke oven plant with a daily capacity of 3,000 tons. The company will construct across the channel

of Village Creek, near the mouth of Venizon Creek, a dam 90 ft. high and 490 ft. long, which by impounding the water of Village Creek and its tributaries will form a reservoir with a capacity of 2,500,000,000 gallons of water. The dam will be of concrete and on its crest will be a driveway connecting the sides of the valley, the spillway being spanned by a concrete arch. The pumping station will have an initial daily capacity of 25,000,000 gallons of water, but will be so designed as to permit the installation of additional 25,000,000 gallons pumping capacity. From the pumping station will be constructed a 42-in. pipe line 2½ miles long to conduct the water to a reservoir from which the water will be distributed by gravity to the company's Ensley plants and to its lands which it has purchased below Ensley.

LAUREL, MISS.—The City Council has ordered the laying of 10,600 ft. of 6-in. water main and 1,200 ft. of 8-in. main in connection with plans for extending and improving the water-works system.

COLUMBIA, MISS.—The city has voted $6,000 of bonds for extension to the water-works and sewer systems.

WINNFIELD, LA.—The city has voted $15,500 of water-works bonds.

NEW IBERIA, LA.—The city has decided to construct a water-works system.

MOUNTAIN CITY, TENN.—The city has awarded contract to R. L. BLEVINS, Bristol, Tenn., for constructing water-works.

WAVERLY, OHIO.—The citizens on Sept. 27 voted in favor of issuing $35,000 of bonds for the construction of a water-works system.

HOWELL, MICH.—Bids are asked until noon, Oct. 15, by the Trustees of the Michigan State Sanitorium for Tuberculosis, Howell, for furnishing the labor and material necessary for the construction of a permanent system of water supply.

APPLE RIVER, ILL.—We are officially advised that the village received bids on Sept. 23 for furnishing all materials and labor for complete system of water-works. The GALENA IRON WORKS, Galena, Ill., the lowest bidder, at $14,339, was awarded contract. The contract is made subject to result of election to be held about Oct. 15. B. W. Hicks, B. S., is Consulting Engr., Vulcan, Mich.

BLOOMINGTON, ILL.—Bonds for $150,000 have been voted to install machinery and develop additional water supply, including one 600,000-gallon pump and an air compressor.

MOLINE, ILL.—See item under Streets and Roads.

WAUKESHA, WIS.—Contract for furnishing about 11,200 ft. of c.-i. pipe, bids opened Sept. 21, has been awarded to the LYNCHBURG FOUNDRY CO., of Lynchburg, Va., at $25.30 per ton.

GRAND RAPIDS, WIS.—Bids are asked by the Board of Public Works until noon, Oct. 8, for furnishing and laying a 4-in. c.-i. water main and connection in various streets. Frank Pomainville is Chn.

FAIRFIELD, NEB.—See item under Light and Power Plants.

BOWMAN, N. DAK.—G. HAGGART, of Fargo, has secured contract for constructing water-works here, at about $12,000.

MOBERLY, MO.—L. G. KNAPP & CO., Kansas City, Mo., are preparing plans for the construction of water-works. Estimated cost, about $150,000.

SULPHUR SPRINGS, TEX.—The citizens on Sept. 21 voted to issue $21,000 of bonds for the construction of water-works. R. M. Askew is City Clk.

DALLAS, TEX.—The Board of Municipal Commissioners has selected William Barclay Parsons, 60 Wall St., New York, and Eugene Klapp, New York, as consulting engineers for the construction of White Rock water plant and dam. The plans to be submitted are those prepared by J. M. Preston, City Engr., and call for the construction of a dam one-half mile long, of earth and concrete, 40 ft. high, with a base of 211 ft. and top width of 16 ft., spillway of 350 ft., and a watershed of 114 square miles to contain 5,785,000,000 gallons of water. Estimated cost, including pumping station and necessary connections, about $730,000 or $750,000.

WAUKONIS, OKLA.—The citizens have voted to issue $20,000 of bonds for the construction of a water-works system.

PENROSE, COLO.—The FOX & SMITH CONSTRUCTION CO., of Florence, has secured contract for the completion of Sheafer dam for the Beaver Land & Irrigation Co., at Penrose, at $125,000.

LAMAR, COLO.—Plans were approved on Sept. 27 by the State Engineer for the enlarging of the Chivington Canal Company's reservoir No. 4 in Kiowa County, near Lamar. The capacity of the reservoir when enlarged, it is estimated, will be 1,177,228,493 cu. ft. of water. Estimated cost, $100,000. The reservoir will draw its water from Big Sandy Creek. This ditch is to be 100 ft. wide at the bottom, 124 ft. wide at the top and 8 ft. deep. The number of acres which will be brought under irrigation by the enlarged reservoir has not been made public. A dam 19.6 ft. high is to be built to hold back the water on the enlarged reservoir site. C. Underhill is Pres. Eugene C. Bell and John R. White are Engrs.

ABERDEEN, WASH.—The City Council is to have a survey made for securing additional water. A. Ewart, City Engr., announces that from his investigations a gravity water system from the Wynoochie River will cost about $1,000,000.

PROSSER, WASH.—Dunn & Dunn, Engrs., are planning a water system for the city. Estimated cost, about $23,000.

PORTLAND, ORE.—Contracts were awarded as follows on Sept. 22 by the Water Board for laying water mains: To the PACIFIC BRIDGE CO., Mohawk Bldg., Portland, for laying mains in Burnside and Glisan Sts., at $3,292 and $12,281, respectively; to WILLIAM STEVENSON, for laying mains in East Tambill and East 39th Sts., at $5,628 and $5,886.

CERES, CAL.—Bids will be received by the Turlock Irrigation District until Oct. 16 for improvements to the canal. Estimated cost, about $11,000. Burton Smith is Supt.

COLUSA, CAL.—Bids will be received until Oct. 18 for the construction of water-works, to cost $50,000, and a sewer system to cost $50,000. J. W. Kaerth is City Engr.

SAN FRANCISCO, CAL.—The Board of Public Works on Sept. 22 awarded contracts for valves on the high pressure water system for fire protection as follows: To the PITTSBURGH VALVE, FOUNDRY & CONSTRUCTION CO., 26th St. and A. V. Ry., Pittsburg, Pa., for about 1,580 valves, at $135,000; to the PUMP & WATER CO., of San Francisco, 900 valves, at $91,576, and to the UNION MACHINE CO., 934 Brannan St., San Francisco, 320 valves at $91,576. Marsden Manson is City Engr.

The Board of Supervisors, John E. Behan, Clk., has decided to purchase the plant of the County Line Water Co. for $30,000, and $5,000 will be expended for improvements.

SALT LAKE CITY, UTAH.—Bids were opened as follows on Sept. 20 by the Board Public Works for the North Temple St. aqueduct at West Temple and First and Second West Sts.: McKay & Reed, $6,847; Zerbe & Walker, $7,200. Louis C. Kelsey is City Engr.

MONTREAL, QUE.—Contract has been awarded to QUINLAN & ROBERTSON, Montreal, by the Water-Works Department for widening and deepening the Montreal Aqueduct at $815,960. The work includes widening and deepening the aqueduct for about 27,300 ft., the excavation of about 1,174,000 cu. yds. of earth and about 400,000 cu. yds. of rock.

WINNIPEG, MAN.—We are officially advised that the JENS-ORTEN-BOVING & CO., 9½ Union Court, Old Broad St., London, E. C., England, have been awarded contract by the city for five water turbines of 5,300 HP. and two of 450 HP. Estimated cost, $97,150.

SAN GERONIMO, MEXICO.—A syndicate headed by George W. Decker, of St. Louis, Mo., is arranging to spend $1,000,000 in establishing a system of irrigation and making other improvements on a tract of 90,000 acres of land which it owns in this section, situated adjacent to the Tehuantepec National and the Pan-American railroads. Among others who are interested in the enterprise are W. W. Wilmington, of Rock Island, Ill., and Frederick E. Decker, of Enid, Okla. It is planned to place 60,000 acres under irrigation and to convert it into a sugar plantation, upon which a colony of American and German farmers will be located.

SEWERAGE.

BOSTON, MASS.—The city on Sept. 25 awarded contract to WILLIAM J. BARRY for the construction of the Stony Brook sewer at $147,641.

BUFFALO, N. Y.—Francis G. Ward, Comr. Pub. Wks., is preparing plans and specifications for the construction of a sewer to drain the 9th Ward.

BROOKLYN, N. Y.—Bids were received as follows on Sept. 29 by Bird S. Coler, Boro. Pres., for furnishing all the labor and materials required for constructing a sewer in Neptune Ave., from West 33d St. to the pump well at Cassion No. 2, near 12th St., together with an intermediate pumping station and appurtenances at the intersection of Neptune Ave. and West 29th St.: Newman & Carey, 215 Montague St., Brooklyn, $99,247; Litchfield Construction Co., $157,114; Chester A. Dady, $119,244; James Kelley, $105,884; Dominick Bannaco, $214,251; Thomas P. Murphy, $133,031; Donegan Redmond Co., $136,659.

*KINGSTON, N. Y.—Bids were received as follows on Sept. 28 by the Board of Water Supply, New York, for the construction of an intercepting sewer here: King, Rice & Ganey, 280 Broadway, New York, $146,631; W. J. Gawns, $163,858; Fred. E. Ley & Co., Inc., $209,862; Haggerty Contracting Co., $256,236; Foys, Root & Co., $192,134.

BELMAR, N. J.—Contract for furnishing material and constructing certain sewers and disposal works has been awarded by the city to the WORMSER-GOODMON CONSTRUCTION CO., 2 Rector St., New York. Estimated cost, $22,000.

ELIZABETH, N. J.—Bids are asked until 8 p. m., Oct. 15, by the City Council for constructing sewers in various streets. N. K. Thompson is St. Comr.

SCRANTON, PA.—See item under Streets and Roads.

SAINT CLAIR, PA.—Bond issues totaling $165,000 have been approved by the boroughs of Saint Clair and Mount Oliver for modern sewer systems, and within a few weeks these contracts will have been let and the work started. Mount Oliver authorized the expenditure of $75,000 for sewers and Saint Clair $90,000, the latter municipality having already sold its bonds. Bids for the Mount Oliver bonds are being received.

WASHINGTON, D. C.—Contracts for pipe sewers, bids opened on Sept. 27, by the District Commissioners, have been awarded as follows: Extension of storm water outlet of Anacosta trunk sewer and Piney Branch sewer to WARREN F. BRENIZER CO. at $9,250 and $2,088, respectively; for Sect. F of East Side intercepting sewer, to JAMES A. COYLE, $5,215, and for Sect. G, to E. G. GUMMEL, $5,455. Asa A. Phillips is Supt. of Sewers. All contractors of Washington. List of bidders noted last week.

HUNTINGTON, W. VA.—Bids will be received by the City Commissioners until 2 p. m., Oct. 25, for furnishing all the material and labor for the building of a 12-in. lateral sewer in Railroad Ave., First Ward, from 13th to 14th Sts. John Coon is Comr. Sts. and Sewers.

*FORT MORGAN, ALA.—Capt. H. B. Chamberlin, Q. M., U. S. A., has awarded contract for constructing terra cotta pipe sewer and iron outfall pipe, bids opened on Sept. 20, to M. T. JUDGE, of Mobile, at $2,960.

*LOUISVILLE, KY.—We are officially advised that bids were opened as follows on Sept. 24 by the Commissioners of Sewerage for the construction of sewers: Section B, Northwestern sewer Contract 53: James Duff Construction Co., Cleveland, Ohio, $144,558; C. F. Fitch & Co., Louisville, $154,027; T. J. O'Connell, Louisville, $157,702; Blackstaff Engineering Co., Torresdale, Philadelphia, Pa., $165,081; T. B. Jones & Co., St. Louis, Mo., $183,633; D. W. Curtin, Lynchburg, Va., $203,133. Sec. B, Contract 54: C. F. Fitch & Co., $80,065; James Duff Construction Co., $81,111; T. J. O'Connell, $82,652; Blackstaff Engineering Co., $85,658; T. B. Jones, $91,068; D. W. Curtin, $107,486; American Engineering & Construction Co., $110,750. Sec. C, Contract 55: J. Duff Construction Co., $79,505; B. C. Milner Sons & Co., Louisville, $82,393; T. J. O'Connell, $88,397; James Ferry & Son, Grafton, Pa., $94,085; Blackstaff Engineering Co., $94,313; Louisville Contracting Co., Louisville, $94,532; American Engineering & Construction Co., $99,093; E. G. Nave Bros. Co., Portsmouth, Ohio, $112,983. Sec. D, Contract 48: E. A. Barker & Son, Louisville, $51,485; B. C. Milner Sons & Co., $52,228; Louisville Contracting Co., $54,155; James Ferry & Sons, $54,997; American Engineering & Construction Co., $58,789; T. J. O'Connell, $59,804; James Duff Construction Co., $62,777; E. G. Nave Bros. Co., $63,728. Bids in detail are given under Contract Prices.

AKRON, OHIO.—Bids are asked until noon, Oct. 8, by the Board of Public Service, Ray F. Hamlin, Secy., for the construction of a sewer in Bellows St., from Miller Ave. to Cole Ave., with all the necessary catch basins, lamp holes, manholes, ventilators and appurtenances.

CARTHAGE, OHIO.—The citizens voted on Sept. 21 to issue $32,500 of bonds for a sewer system and disposal plant. Clinton Cowen, County Engineer's office, Cincinnati, is Engr.

YOUNGSTOWN, OHIO.—Bids will be received until Oct. 8 by the Board of Public Service, W. H. McMillin, Clk., for sewering Bettie Ave.

WOOSTER, OHIO.—Bids are asked until noon, Oct. 8, by the Board of Public Service, C. W. Van Nest, Clk., for furnishing the necessary labor and material for the construction of a sewer on East Bowman St. and Gasche St.

WELLSVILLE, OHIO.—Bids will be received by the Board of Public Service until noon, Oct. 9, for furnishing the material for constructing an 8-in. sanitary sewer with all the necessary manholes, flush tanks, Y branches, etc., in Arthur St. and Vulcan Alley. W. G. O'Grady is Secy.

CLEVELAND, OHIO.—Bids will be received by the Secretary of the Board of Public Service until noon, Oct. 14, for furnishing all labor and materials necessary for covering the main intercepting sewer outlet basin.

Bids are asked by E. H. McIntosh, Secy. Bd. Pub. Ser., until noon, Oct. 13, for the construction of the Quincy Ave. S. E. sewer.

STEUBENVILLE, OHIO.—Bids are asked until noon, Oct. 27, by the County Commissioners for sewering, grading and macadamizing the Bloomfield and Smithfield Free Turnpike road.

CINCINNATI, OHIO.—See item under Streets and Roads.

GRAND RAPIDS, MICH.—See item under Streets and Roads.

SAULT STE. MARIE, MICH.—The Council has accepted the report of the Board of Public Works for the construction of the Elm St. sewer. Estimated cost, $14,800.

KENOSHA, WIS.—Preliminary plans are being prepared for the construction of sewers, probably of concrete. Estimated cost, $80,000 to $100,000. Robert Moth is City Engr.; J. W. Alvord, of Chicago, Ill., is Consulting Engr.

WEST ALLIS, WIS.—Bids will be received until Oct. 11 by L. F. Fish, City Clk., for constructing about 55,000 lin. ft. of pipe sewers and about 170 manholes.

GREEN BAY, WIS.—Bids are asked until 10 a. m., Oct. 11, by the city for the construction of a 12-in. vitrified pipe sewer in a portion of Maple Ave.

MANCHESTER, IOWA.—Bids will be received until Oct. 11 by the City Council for constructing a sewer in Liberty St., to consist of 8-in. No. 1 vitrified sewer pipe. Edward Hruby is City Clk.

BOONE, IOWA.—Plans are being prepared for vitrified clay pipe sewers here. Contract will probably be let in November.

CLARINDA, IOWA.—Contracts for constructing sewers, bids opened on Sept. 14, have been awarded as follows: To the INDEPENDENT CONSTRUCTION CO., of Davenport, at 52 cts. and 59 cts. per lin. ft., and to DUNNEGAN & CARY, of Shenandoah, for 18-in sewer at 84 cts. per lin. ft.

ROSSEAU, MINN.—Bids are asked until 7 p. m., Oct. 9, by P. H. Buran, Village Clk., for the construction of the following sewers: [illegible]50 lin. ft. of 30-in. vitrified clay pipe, double strength; 357.5 lin. ft. of 18-in. vitrified clay pipe, double strength; 313.5 lin. ft. of 15-in. vitrified clay pipe, double strength; 380 lin. ft. of 12-in. vitrified clay pipe, double strength; 282 lin. ft. of 9-in. vitrified clay pipe, double strength; six brick manholes (including covers, etc.); six catch basins (including covers) and the No. 9-in. V. C. P. connection to manholes. J. E. Carroll, Crookston, Minn., is Consulting Engr.

HOLTON, KAN.—The State Board of Health has approved plans for a sewer system to be constructed here. Estimated cost, $75,000.

*WICHITA, KAN.—Bids are asked until 9 a. m., Oct. 25, by William Sence, City Clk., for the construction of sewer mains of sanitary sewer No. 12, known as College Hill sanitary sewer and for extension of laterals of storm water sewer No. 5 from present terminus to Wichita Drainage Canal. Bert C. Wells is City Engr.

STROMSBERG, NEB.—Bids were opened on Sept. 15 by the Stromsberg Sewer Co., C. V. Nelson, Secy., for constructing a sanitary sewer system requiring 16,342 lin. ft. of 6, 8, 10 and 12-in. pipe, 33 manholes, five flush tanks and concrete outlet. Contract has been awarded to H. C. GARDENER, of Lincoln. Grant & Litton, F. & M. Bldg., Lincoln, are Engrs.

SALEM CITY, S. DAK.—Bids will be received until Oct. 18 by N. M. Nelson, City Audr., for constructing a main sewer in Main St. and Norton Ave., and for constructing sewers in other streets.

ST. JOSEPH, MO.—See item under Streets and Roads.

*CANYON CITY, TEX.—Bids will be received as a whole by the Mayor until 2 p. m., October 19, for furnishing all the materials and labor necessary for the construction of sanitary sewers and water-works system. The work will cons'st approximately of 15,526 ft. 6-in., 14,538 ft. 8-in., 3,130 ft. 12-in. sewer pipe, one disposal plant, 6,000 ft. 8-in., 1,440 ft. 6-in. c.-i. pipe, 17 fire hydrants, one steel tower, one concrete storage tank, one gasoline engine. E. L. Dalton, Dallas, Tex., is Consulting Engr.

ENID, OKLA.—Contracts for constructing storm sewers, bids opened on Sept. 17, have been awarded by the city as follows: To REARDON & MASKLYENE, of Enid, for Cherokee Ave. sewer of reinforced concrete, at $38,997, and to STARKEY & LEE, of Perry, for 2-ring brick sewer, on Elm Ave., at $21,523. J. P. Rickard is City Engr.

LAWTON, OKLA.—The Department of the Interior, Washington, D. C., has appropriated $25,000 for a sewer system for the north addition. John D. Kennard, of Lawton, is Engr.

ADA, OKLA.—P. G. Ekman, City Engr., has completed plans for about five miles of lateral sanitary sewers. Contracts will be let about Oct. 20.

WENATCHEE, WASH.—It is proposed to construct a sewer system here. Estimated cost, about $400,000. C. C. Ward is Engr., Wenatchee.

BELLINGHAM, WASH.—Contract for constructing a trunk sewer in Lottie, Dupont and C Sts. has been awarded to RIDDLE & HAWKIN at $6,012.

SAN FRANCISCO, CAL.—The Board of Public Works on Sept. 17 approved plans for the construction of North Point main sewer. Estimated cost, $130,000.

COLUSA, CAL.—See item under Water Supply—Irrigation.

MONTEREY, CAL.—We are officially advised that J. Otis Burrage, 3400 Washington St., San Francisco, has been retained as Consulting Engineer by the city for the construction of storm sewers.

CALDWELL, IDAHO.—Bids will be received until Oct. 9 for the construction of sewers in local sewerage improvement district No. 34. Estimated cost, $60,000. F. H. Richardson is City Engr.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

SMITHFIELD, R. I.—The State Board of Public Roads has awarded the contract for the construction of a section of the proposed state highway in the towns of Smithfield and North Smithfield to T. J. QUINN, of Ashton, R. I., at the State House.

HARTFORD, CONN.—The contracts for state road work, bids for which were received Sept. 27, have been awarded by the State Highway Commissioner as follows: Town of Preston, 12,500 lin. ft. gravel-telford road, including two 12-in. c.-i. pipe culverts and four 20-in., one 18-in., and two 15-in. tile culverts, to OLIN T. BENEDICT, of Pittsfield, Mass., for $1.73 per lin. ft. for gravel, $2.33 per lin. ft. for telford, 75 cts. per lin. ft. for rubble drain, 40 cts. per lin. ft. for railing, and 75 cts. per sq. yd. for cobble gutters. Town of Newtown, 27,800 lin. ft. gravel-telford road, including two 18-in., eight 15-in., two 12-in., eleven 24-in. and four 20-in. tile culverts, to the B. N. BEARD CO., of Shelton, Conn., for $1.88 per lin. ft. for gravel, $2.50 per lin. ft. for telford, 50 cts. per sq. yd. for cobble gutters, 35 cts. per lin. ft. for railing, $1.25 per lin. ft. for rubble drain, $5 per cu. yd. for walling and $840 for superstructure to two bridges.

Plans for the improvement of 4,000 lin. ft. on the Hartford and Willimantic Turnpike, commonly known as "Nigger Hill," have been been received from W. Leroy Ulrich, Engr. This work will be done soon.

Plans for 3,900 lin. ft. of state road work on the Shewville Highway in the town of Ledyard have been received by the State Highway Commissioner from Chandler & Palmer, Engrs.

*FORT H. G. WRIGHT (New London, Conn., post-office), N. Y.—Bids are asked by the Constructing Quartermaster, U. S. A., New London, until 10 a. m., Oct. 21, for constructing approximately 1,700 lin. ft. of 16-ft. macadam road and 2,000 lin. ft. of 5-ft. cement sidewalk at Fort H. G. Wright, N. Y.

NEW YORK, N. Y.—Bids are asked by the Park Board, Henry Smith, Pres., until 3 p. m., Oct. 14, for paving with asphalt tiles the walks in Prospect Park, Boro. of Brooklyn, together with all work incidental thereto.

The following bids were received by Bird S. Coler, Pres. Boro. of Brooklyn, on Sept. 29, for regulating and repaving with asphalt block pavement on a concrete foundation the roadway of Brooklyn Ave., from Prospect Pl. to Eastern Parkway, together with all work incidental thereto: Hastings Pavement Co., $18,979; Barber Asphalt Paving Co., 30 Church St., New York, $18,796. Regulating and repaving with asphalt pavement on a concrete foundation the roadway of Lincoln Pl., from Troy to Rochester Aves.: Uvalde Asphalt Paving Co., 1 Broadway, New York, $11,553; Barber Asphalt Paving Co., 30 Church St., New York, $12,348; Brooklyn Alcatraz Paving Co., $11,413; Cranford Co., 52 Ninth St., Brooklyn, $12,620. Schenk Ave., from Jamaica to Atlantic Aves.: Uvalde Asphalt Paving Co., 1 Broadway, New York, $10,951; Cranford Co., 52 Ninth St., Brooklyn, $11,202; Barber Asphalt Paving Co., 30 Church St., New York, $11,360.

NIAGARA FALLS, N. Y.—The Common Council has authorized the paving of portions of Spruce and Linwood Aves., Cedar Pl. and Tenth St., at a cost of $81,039.

SYRACUSE, N. Y.—The following bids were received by Board of Contract and Supply on Sept. 20 for resurfacing North Salina St.: Central City Paving Co., with Trinidad asphalt, $20,700, and Warner-Quinlan Asphalt Co., Syracuse, with Trinidad asphalt, $19,133, and bitulithic, $19,587.

GENEVA, N. Y.—The Board of Public Works has awarded the contract for repairing the Lochland Road to WHITMORE, RAUBER & VICINUS, 279 South Ave., Rochester, N. Y., at $12,739.

ISLIP (L. I.), N. Y.—The Islip Town Board and the Board of Highway Commissioners met jointly on Sept. 30 for the purpose of opening bids for the construction of concrete sidewalks, curbs and gutters. There were six bidders and the contract was awarded to the BAKER CONTRACTING CO., 90 West St., New York, whose figures are 74 cts. per lin. ft. for sidewalks 5 ft. wide, and 62 cts. per lin. ft. for curbs and gutters. The money appropriated last spring for this purpose totals $9,000.

NEW ROCHELLE, N. Y.—Bids are asked by Richard Lathers, Jr., Chn. Bd. of Public Works, until 8 p. m., Oct. 14, for paving with macadam Lockwood Ave., from Sickles Pl. to Madeline Ave. James K. Wilkes is Ch. Engr., New Rochelle.

ALBANY, N. Y.—The following bids were received on Oct. 1 by the State Highway Commission for the reconstruction of State roads in Erie County: Buffalo-Hamburg Road No. 2-R, length 4.607 miles: Thomas Fitzgerald Co., Fredonia, N. Y., $93,500; Hagaman, Miller & Hagaman, 688 Clinton Ave., Rochester, N. Y., $94,000; Frank V. E. Bardoll, 400 Morgan Bldg., Buffalo, $85,-647; Whitmore, Rauber & Vicinus, 279 South Ave., Rochester, N. Y., $101,500; FRANK V. BROTSCH CO., 39 State St., Rochester, N. Y., $83,900 (awarded contract); Henry P. Burgard Co., 275 Lathrop St., Buffalo, $95,000; Frederick A. Brotsch, Jr., 12 Triangle Bldg., Rochester, $92,000; Mosier & Summers, 1266 Seneca St., Buffalo, $98,900; Bush & Percival, 523 Brisbane Bldg., Buffalo, N. Y., $102,526; Frank L. Cohn, 49 Niagara St., Buffalo, N. Y., $89,-300; James E. Martin, 33 Corliss Ave., Poughkeepsie, $99,990; John Miller, 802 Ellicott St., Buffalo, N. Y., $100,000; Louis H. Gypp Construction Co., Buffalo, N. Y., $92,-880; American Pipe & Construction Co., 112 North Broad St., Philadelphia, Pa., $92,854.

Orchard Park Road (Sec. 1) No. 27-R, length, 1.155 miles: FRANK V. BROTSCH CO., 39 State St., Rochester, N. Y., $19,100 (awarded contract); Frank V. E. Bardoll, Buffalo, N. Y., $21,898; Hagaman, Miller & Hagaman, Rochester, N. Y., $22,200; Frank L. Cohn, Buffalo, N. Y., $22,140; Whitmore, Rauber & Vicinus, Rochester, $22,100; Henry P. Burgard Co., Buffalo, N. Y., $22,000; Frederick A. Brotsch, Rochester, N. Y., $21,-800; Mosier & Summers, Buffalo, N. Y., $21,-900; John Miller, Buffalo, N. Y., $22,640; Bush & Purcival, Buffalo, N. Y., $26,715; Louis H. Gypp Construction Co., Buffalo, N. Y., $21,666; Frederick J. Munn, Buffalo, N. Y., $23,907; James E. Martin, Poughkeepsie, N. Y., $22,490; American Pipe & Construction Co., Philadelphia, Pa., $22,827; Newport Construction Co., Newport, N. Y., $24,793.

Orchard Park Road (Sec. 2) No. 66-R, length .952 miles: Frank V. E. Bardoll, Buffalo, N. Y., $16,928; Frank L. Cohn, Buffalo, N. Y., $18,000; Whitmore, Rauber & Vicinus, Rochester, N. Y., $17,200; Henry P. Burgard Co., Buffalo, N. Y., $17,000; FREDERICK A. BROTSCH, Rochester, N. Y., $16,775 (awarded contract); Hagaman, Miller & Hagaman, Rochester, N. Y., $17,-400; Mosier & Summers, Buffalo, N. Y., $17,-200; Busch & Purcival, Buffalo, N. Y., $21,005; Frederick J. Munn, Buffalo, N. Y., $18,962; John Miller, Buffalo, N. Y., $17,-600; James E. Martin, Poughkeepsie, N. Y., $17,449; American Pipe & Construction Co., Philadelphia, $17,818; Newport Construction Co., Newport, N. Y., $18,843.

Orchard Park Road (Sec. 3) No. 67-R, length 3.41 miles: Frank V. E. Bardoll, Buffalo, N. Y., $61,146; Whitmore, Rauber & Vicinus, Rochester, N. Y., $61,300; FRANK V. BROTSCH CO., Rochester, N. Y., $55,500 (awarded contract); Henry P. Burgard Co., Buffalo, N. Y., $65,000; Hagaman, Miller & Hagaman, Rochester, N. Y., $62,200; Frederick J. Munn, Buffalo, N. Y., $69,104; Frederick A. Brotsch, Rochester, N. Y., $60,000; Mosier & Summers, Buffalo, N. Y., $61,600; Busch & Purcival, Buffalo, N. Y., $73,187; James E. Martin, Poughkeepsie, N. Y., $61,-344; John Miller, Buffalo, N. Y., $62,000; Louis H. Gypp Construction Co., Buffalo, N. Y., $57,880; American Pipe & Construction Co., Philadelphia, Pa., $62,699.

Orchard Park Road (Sec. 4), No. 68-R, length 1.17 miles: Frank V. E. Bardoll, Buffalo, N. Y., $22,485; Frank L. Cohn, Buffalo, N. Y., $21,800; Whitmore, Rauber & Vicinus, Rochester, $22,500; FRANK V. BROTSCH CO., Rochester, N. Y., $19,400 (awarded contract); American Pipe & Construction Co., Philadelphia, Pa., $23,014; Henry P. Burgard Co., Buffalo, N. Y., $21,-500; Frederick A. Brotsch, Rochester, N. Y., $21,500; Mosier & Summers, Buffalo, N. Y., $22,500; Busch & Purcival, Buffalo, N. Y., $26,794; Huntley & Alberson, Buffalo, N. Y., $23,725; Hagaman, Miller & Hagaman, Buffalo, N. Y., $24,000; James E. Martin, Poughkeepsie, N. Y., $21,990; Louis H. Gypp Construction Co., Buffalo, N. Y., $20,880; John Miller, Buffalo, N. Y., $22,000; Frederick J. Munn, Buffalo, N. Y., $25,000.

NEWARK, N. J.—On Sept. 23 the Board of Works awarded the contract for paving Bloomfield Ave., from Mt. Prospect Ave. to Belleville line, to VAN KEUREN & SONS, of Harrison, N. J., at $67,516.

NEWTON, N. J.—Bids were received by the Board of Chosen Freeholders on Sept. 20 for grading and macadamizing a road in the Township of Hardyston, between Passaic and Sussex Counties, near Stockholm, about six miles in length, and the contract has been awarded to B. M. SHANLEY'S SONS CO., of Newark, at $55,868, for oil burner. A. H. Konkle is County Engr.; Loren T. Cole is Dir.

CURWENSVILLE, PA.—REED & PATTON, of Curwensville, have been awarded contracts for building sections of state roads at Curwensville and in Pike Township.

PITTSBURG, PA.—Bids are asked by R. J. Cunningham, County Controller, until noon, Oct. 26, for improving five public roads in Allegheny County.

HARRISBURG, PA.—Contracts for rebuilding two additional sections of the national pike in Fayette County will be let soon by State Highway Commissioner Joseph W. Hunter. Four sectional contracts have been let for portions in Somerset and Washington Counties. Three of these have been awarded to JOHN F. HOWLEY & CO., 237 Fourth Ave., Pittsburg.

SCRANTON, PA.—The following contracts have been let for paving North Main St. and for constructing sewers on Wood and Market Sts.: McCONVILLE & FITZPATRICK, paving North Main St., from Mill to Union Sts., Pittsburg-Buffalo brick, $1.96 per yard; total, $31,044. EDWARD HEALEY, Market St. sewer, $2,163; JAMES MUNLEY, Wood St. sewer, $1,690. The bids for paving were as follows: B. C. Coons, Mack block brick, $36,221; Edward Healey, Metropolitan block brick, $37,221; Mack block, $33,895; Pittsburg-Buffalo brick, $33,737; Scranton block, $33,579; McConville & Fitzpatrick, Pittsburg-Buffalo brick, $31,444.

WILMINGTON, DEL.—The Levy Court has awarded the contract for constructing a road from Newark to Pennsylvania State line, a distance of 2.7 miles, to B. F. WICKERSHAM, of Kennett Square, Pa., for $22,750. A complete list of bids was given on Sept. 23.

NORFOLK, VA.—P. J. LOONEY has been awarded the contract by the Board of Control for furnishing and laying combined curbing and guttering in Westover Ave., Claremont, Matsaca and other streets in the Westover Section of Ghent. Mr. Looney will furnish and lay the combined curb and gutter for 52 cts. per lin. ft., with 23 cts. additional for Wainwright corners.

PETERSBURG, VA.—It is stated that Market and Washington Sts. are to be paved with brick and granolithic sidewalks are to be constructed at a cost of $25,000 and $8,-500, respectively.

BECKLEY, W. VA.—Bids have been received by the City Council for street improvement. Wingate & McGhee, of Roanoke, Va., were found to be the lowest bidders on all the work taken as a whole, their bid for the entire job, figuring on a limestone basis for the macadam streets, was $71,370. Figuring on a concrete macadam, using native stone, their bid for the entire job was $69,-400. The Cantrel Construction Co. made a bid of $88,517 for limestone and $107,820 for concrete. R. M. Bibb & Co. bid on the limestone basis for macadam only, and their bid amounted to $98,480. Wolfe & Ewing bid $90,056 for the limestone macadam and $73,-814 for the concrete macadam. All of the above bids were for the same amount of work, the only difference being made in the class of material used for the macadam work.

ATLANTA, GA.—The following are the bids received on Sept. 20 for paving with creosoted wood block Marietta and Forsyth Sts., about 10,200 sq. yds.: Byron Souders, Atlanta, $2.68 per sq. yd.; Georgia Granite Co., Atlanta, $2.56¼; Thornton & Mayne, Atlanta, $2.499, and U. S. Wood Preserving Co., 165 Broadway, New York, N. Y., $2.47. R. M. Clayton is City Engr.

HARTSELLE, ALA.—M. CASEY & CO. have the contract for ten miles of pike road to be built east from the corporation line here. This county last year voted $260,000 for road purposes, and up to this time there has been built in the county about 35 miles of pike.

NEW ORLEANS, LA.—It is stated that an ordinance providing for the extension of Canal St. to West End in a straight line beyond the New Basin, will be introduced in the City Council. This opening of the street through new territory is advocated by the property owners, and a party of them have made a preliminary survey of the proposed route. The road is to cut through the Potters' Field at the continuation of Canal St., and thence through the Firemen's Cemetery, but without disturbing any of the tombs, direct to the holdings of the New Orleans Land Co. along Conti Ave. Through the cemeteries the roadway is to be 60 ft. wide, but from Conti Ave. out it will be 200 ft. wide for a distance of two miles to the lake. This road will be built entirely by the New Orleans Land Co. It will run parallel with one of the drainage canals which the company has dug through its land.

CLINTON, TENN.—Contracts were awarded on Spet. 15 for constructing about 40 miles of pikes in Anderson County as follows (total cost, $300,000): DOGGETT & DOUGHTY, Road No. 1, from Clinton to Coal Creek, about 3.2 miles; Road No. 4, Marlowe line, 2.6 miles; Road No. 9, to be completed. PETERS & GIBSON, Road No. 3, Scarboro to Westvale, 7¾ miles. JOHN JOHNSON, Road No. 13, Nursery Farm to Graves Gap, eight miles.

DANDRIDGE, TENN.—The Jefferson County Pike Commission has awarded the contract for constructing macadam roads here, at a cost of $175,000, to F. E. BRADY, of Knoxville, Tenn.

BRISTOL, TENN.—Bids are asked until Oct. 7 by the Sullivan County Road Commission for building 60 miles of macadamized road in Sullivan County from the proceeds of the additional $200,000 bond sale made recently. Profiles and specifications, which are the same as those of the government, are on exhibition. More than 30 miles of road will be built as a result of the $100,000 issue last year, which was supplemented by other funds.

KNOXVILLE, TENN.—The KETTLE RIVER QUARRIES CO., Second Bank Bldg., Minneapolis, Minn., has secured the contract for paving with creosoted blocks portions of several streets here, at $37,182.

*ASHLAND, KY.—Bids are asked by E. A. Shepard, City Clerk, until 7 p. m., Oct. 11, for the construction of vitrified brick pavement with concrete curb and gutter and header for same. The approximate quantities are: 17,200 sq. yds. of paving; 8,860 lin. ft. combined curb and gutter, and necessary catch basins for same; 4,000 lin. ft. for concrete header. J. O. Mathewson is Mayor; Joseph Bosey is City Engr.

SANDUSKY, OHIO.—Plans and estimates for paving Franklin St. with brick or sheet asphalt, in all about 12,000 sq. yds., are being prepared. C. M. King is City Engr.

STEUBENVILLE, OHIO.—See item under Sewerage.

CLEVELAND, OHIO.—On Sept 28 the County Commissioners awarded the contracts for the paving of two roads. The improvement of the Irish Road, from Olmsted Falls to Berea, was let to W. H. OTTER, for $60,000, the pavement to be of brick with stone curbing. BALDWIN BROS. will pave the East Lake Road with brick and a concrete curbing at $125,000.

CLEVELAND, OHIO.—See item under Bridges.

LAKEWOOD, OHIO.—Bids are asked by B. M. Cook, Village Clerk, until 11 a. m., Oct. 11, for furnishing the labor and material necessary for Newman Ave. paving, in accordance with the form of contract, plans and specifications on file at the office of the Village Clerk, also at the office of The Williaml H. Evers Engineering Co., 237 The Arcade, Cleveland, Ohio.

CINCINNATI OHIO.—At a recent meeting of the County Commissioners JOSEPH GRADISON was awarded the contract to improve the Lick Run pike, from the city line to Dater Hill, at his bid of $28,755. JOHN FUNK & CO., at their bid of $21,390, were awarded the contract to improve the Loveland and Madeira Pike, between Loveland and Remington.

The County Commissioners have awarded five contracts for county improvements. The contract for the improvement of the Snyder Road has been let to MEREDITH & DECKEBACH on a bid of $12,623. The estimate on this work was $16,009. There were four other bidders. The contract for the improvement of the Dry Ridge Road to H. WESTERMAN on a bid of $6,805. The estimate on this work was $8,645. Five other contractors bid on the work. The contract for bridges and culverts on the Forfeit Run Road was awarded to THOMAS & ZESKE on a bid of $6,513. The estimate was $8,628. There were seven other bidders. The contract for the improvement of the Riddle Road was awarded to JOHN RYAN, who bid $1,484. Mr. Ryan also secured the contract for a concrete box culvert on the Taylor Creek Road on a bid of $352.

Bids are asked by the Board of Public Service until noon, Oct. 11, for the following road improvements: Ravine St., west of Torrence Road, from existing sewer, crossing Columbia Ave., west of Torrence, to a point in Madison Rd,, 128 ft. west of center line of Cohoon St.; Madison Road, from said point 128 ft. west of center line of Cohoon St. east and west to summit; Torrence Road, from Grandin Road to Elmhurst Ave.; Elmhurst Ave., from Torrence Road to ravine west of Torrence Road. Also in Lavinia, O'Bryon, Cinnamon, Cohoon, Breen and Woodland Sts. by constructing sewers and drains.

AKRON, OHIO.—Bids are asked by the Board of Public Service, Akron, until noon, Oct. 8, for paving Bachtel Ave., from Main St. to the east line of the Mest property. Charles H. Watters is Pres.

BRYAN, OHIO.—Bids will be received until Oct. 8 at the office of the Commissioners of Williams County at Bryan for grading and macadamizing 2.31 miles road in Jefferson Township, under provisions of the State highway law. Estimated cost, $13,587. James C. Wonders, of Columbus, Ohio, is State Highway Comr.

TOLEDO, OHIO.—The Board of Public Service has awarded the contract for paving with brick a portion of Delence St. to HENRY SHEEHAN, at $5,601.

POMEROY, OHIO.—We are officially advised that the contract has been let to J. B. LINDSAY, of Middleport, Ohio, at $3,420, for constructing State Aid Road in Meigs County, Highway C, using sandstone curb. The contract for Highway B has been let to GEORGE BAUER, JR., of Pomeroy, at $3,-996, using sandstone curb. James C. Wonders, Columbus, Ohio, is State Highway Comr.

LIGONIER, IND.—Bids will be received by the Common Council until Oct. 12 for about 7,400 sq. yds. paving with vitrified brick, asphalt, bitulithic or creosoted block. R. E. Jeanneret is City Clerk.

LOGANSPORT, IND.—Bids will be received until Oct. 12 by the Department of Public Works, Charles Ringleben, C[illegible], for grading, graveling and bordering portion of Wright St.

FOWLER, IND.—See item under Bridges.

PORTLAND, IND.—Bids are asked until 6 p. m., Oct. 11, by the Common Council for constructing cement sidewalks on various streets in this city. Walter H. [illegible]enpiller is City Clerk.

SHELBYVILLE, IND.—Bids are asked by the Commissioners of Shelby County, until 10 a. m., Oct. 12, for the construction of a concrete walk along the south side of the court-house and jail grounds on the north side of Taylor St., from Harrison St. to the first alley west. G. B. Huntington is County Audr.

GRAND RAPIDS, MICH.—The contract for improving Hall St., between Grandville and Godfrey Aves., has been let by the Board of Works to FRED GILNER, at $12,296. It is expected the preliminary work can be completed this fall. The contract for the construction of a sewer in Walker Ave. and Tamarack St. has been let to DAVID CROWLEY, of Saginaw, Mich., for $2,[illegible]7.48.

PARIS, ILL.—The BAUM CONSTRUCTION CO. has secured the contract for paving S. Marshall St. with brick, at $18,522.

CAIRO, ILL.—The Board of Local Improvements on Sept. 20 received bids as follows for paving (a) Walnut and Holbrook Sts., (b) 21st and West 21st Sts., and (c) Elm St.: Cairo Construction Co., (a) $66,-813, (b) $27,973; R. L. WILLIAMS, (a) $57,350 (awarded contract), (b) $25,715 (awarded contract), (c) $9,308 (awarded contract); John Cherry, Jr., (a) $65,139; Garner Hanes, (a) $69,012, (b) $26,514, (c) $10,870; L. M. Johnson, (b) $26,946, (c) $10,103; A. S. Fraser, (c) $11,325.

ROCK ISLAND, ILL.—The Board of Local Improvements has awarded the contract for paving with brick Lincoln Court to the TRI-CITY CONSTRUCTION CO., at $1.70 per sq. yd.

MOLINE, ILL.—The Board of Local Improvement received bids on Sept. 27 for paving First Ave. and the laying of water mains on Factory Ave. The McCARTHY IMPROVEMENT CO., of Davenport, was awarded the contract for the paving, the price being $50,000, and the MOLINE HEATING & CONSTRUCTION CO. secured the work for the water mains, its bid being $8,698. There were three bidders for paving, the other two bids being submitted by J. B. McCauley, of Galesburg, at $51,000, and the Cain Construction Co., of Gary, Ind., $53,000. The other bidders on the water main improvement were the Plaembeck Construction Co. and C. A. Bergland, of Moline. The work will be started immediately. The contract for the water mains specifies that the work must be completed within 30 days.

QUINCY, ILL.—Bids will be received by John A. Steinback, Mayor, until 12 p. m., Oct. 11, for paving Tenth St. seven blocks of brick blocks, asphalt filler, macadam base, sandstone curb.

CHICAGO, ILL.—ALEXANDER N. TODD has been awarded two contracts for $45,000 worth of street paving. The contracts were awarded by the Board of Local Improvements.

The M. H. McGOVERN CO., 1084 Paulina St., has secured the city's contract for the repair of asphalt streets. Bids were opened for the repair of approximately 30,000 sq. yds., with the McGovern Company as the lowest bidder. The offer is 87 cts. a sq. yd. for asphalt surface. Mr. McGovern last year was paid $1.75 for this same work. The Barber Asphalt Co. was second with a price of 90 cts. Parker-Washington Co. submitted a price of 97 cts., and Gindele Bros., the highest bidder, a price of $1.65. The city stipulated in the specifications that binder will be paid for at the rate of $5 a ton and concrete at the rate of $7 a cu. yd.

Bids will be received until Oct 8 by the Board for Local Improvements for paving with repressed vitrified brick, creosoted wooden block, etc., Addison, Ashland and several other streets and alleys. Charles A. V. Standiss is Secy.

The County Commissioners have accepted bids as follows: MEREDITH & DECKEBACH, $12,623, for improvement of Snyder Road, from North Bend Road to West Fork Road; H. WESTERMANN, $6,805, for improvement of Dry Ridge Road, from Welks Pl. to Miami River Road; THOMAS & ZESKE, $6,515, for bridges and culvert of Forfeit Run Road.

DULUTH, MINN.—The Board of Public Works on Sept. 25 awarded the contract for the paving of Second Alley, between Lake and Fourth Aves. west, to HUGH STEELE. His bid was $8,088.

WICHITA, KAN.—McINTYRE & TESSE have secured the contract for paving with brick a portion of 13th St. at $1.90 per sq. yd.

SPRINGFIELD, MO.—The City Council on Sept. 14 is stated to have awarded the contract for Hassam pavement as follows to the RADCLIFFE-GIBSON CONSTRUCTION CO.: Washington St., Madison St., at $1.60, and East Walnut St., at $1.75 per sq. yd.

SEDALIA, MO.—The City Council has passed a resolution providing for paving a portion of Broadway.

ST. JOSEPH, MO.—On Sept. 2[illegible] the Board of Public Works awarded two paving contracts. RACKLIFFE & GIBSON will pave Highly St., from 18th to 19th Sts., with Hassam, at $1.35 per sq. yd. H. N. RICE of the Phoenix Brick & Construction Co. was

awarded a contract to pave 26th St., from Mitchell Ave. to Penn St., with brick on a 4-in. concrete base, at $1.59 per sq. yd. G. O. SKILBRED was awarded a contract to build a sewer in District No. 90. JOHN MARNELL was let a contract to construct two sewers in District No. 118. Property owners on Main St., from Dewey Ave. to Third St., were given 15 days in which to select a paving material for use on their street.

ADA, OKLA.—P. G. Ekman, City Engr., has completed plans and specifications for paving approximately 40,000 sq. yds. with Oklahoma natural rock, and contract will be let about Oct. 20.

LAKE CITY, COLO.—Bids will be received until Oct. 9 by Charles W. Comstock, State Engr., Denver, Colo., for constructing and repairing a portion of the wagon road between Lake City and Creede.

WALLA WALLA, WASH.—The BARBER ASPHALT PAVING CO., Mutual Life Bldg., Seattle Wash., is stated to have secured a contract for paving here, at about $45,000.

OLYMPIA, WASH.—MILLS BROS., of this city, have been awarded contract for building State Aid Road No. 43, at $12,000.

BALLARD, WASH.—The Board of Public Works has received the bids for the paving contract on Market St. and 24th Ave. N. W. Bids were called for both brick and asphalt. The Barber Asphalt Co., the only bidder for asphalt, offered to do the work for $1.75 per sq. yd. and maintain the paving for five years. The brick bids ran $2.80 per sq. yd. and up. The contract will amount to over $100,000.

NORTHBEND, ORE.—The City Council has approved plans and specifications prepared by F. H. Brigham, City Engr., for the improvement of Virginia Ave., at estimated cost of $5,140.

WOODBURN, ORE.—Bids are asked by the city until Oct. 7 for laying about half a mile of bitulithic pavement. Estimated cost, $32,000. W. J. Knox is City Engr.

OAKLAND, CAL.—The City Council has adopted resolutions providing for the paving of portions of Second and Fourth Sts. Frederick C. Turner is City Engr.

SALT LAKE CITY, UTAH.—We are officially advised that the following bids were received by Louis C. Kelsey, City Engr., on Sept. 10 for (a) Curb and Gutter Extension No. 11 and (b) No. 12: H. G. Gilkerson, J. M. Long, (a) $2,986, (b) $1,795; McKay Reed, (a) $3,090, (b) $2,193; J. D. Hanley, (a) $3,118, (b) $1,856.

Three public improvements calling for the expenditure of approximately $370,000 will be started soon, as a result of the City Council's recent action in authorizing the Board of Public Works to call for bids on paving Ninth East St., from South Temple St. to the city limits, a distance of four miles; First Ave., from J St. East to the Reservation, one mile, and Third South St., from State to Tenth East Sts., a distance of 1½ miles. The total length of the proposed street paving is about seven miles. Louis C. Kelsey is City Engr.

BOISE, IDAHO.—The City Engineer has submitted a report to the Council recommending that 40 blocks of paving be done.

TORONTO, ONT.—The extension of Bloor St. to Danforth Ave. is contemplated; the improvements, it is stated, will necessitate the construction of two viaducts over the Don and one over first Rosedale Ravine, at an estimated cost of $619,000. H. C. Rust is City Engr.

MANUFACTURING PLANTS.

ENOSBURG FALLS, VT.—The Enosburg Falls Condensed Milk Co. is planning to erect a building in which will be manufactured the cans necessary for putting up milk in the local plant as well as the factories in Michigan and Pennsylvania.

BOSTON, MASS.—Bids are asked by William M. Smith, Acting Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., Oct. 16, for improving the ropewalk building at the U. S. Navy Yard, Boston.

LYNN, MASS.—Work has been commenced on clearing away the debris of the ruins of the A. B. Hoffman Co.'s factory on Boston St., preparatory to the erection of the new building for the concern. The main building will be of three stories, 110 x 40 ft., the narrower portion facing on Boston St. and extending parallel with Bridge St. In the front portion will be the offices and shipping and receiving depots, with increased facilities over the former arrangements. Joining the rear portion of the 4-story section, which is the main building, there will be a 3-story section, 32 x 65 ft., which will extend along the rear of the lot nearest to Waterhill St. and facing on Boston St. Extending further along in the same direction will be a 2-story addition, 40 x 75 ft., which completes the larger portions of the factory to be erected. Between the different sections there will be built brick fireproof walls, with fireproof doors, which can be closed in case of fire. On the Bridge St. side there will be erected a 1-story section, which completes the factory. The engine and boiler room will be one story, of brick construction, and will be located in nearly the same place as before, facing on Boston St., beside the main building and in front of a portion of the 3-story section. The basement portions of the factory will be built of brick and the upper stories of wood. Dana A. Sanborn, 38 Exchange St., Lynn, is Arch.; Carl L. Hoffman is Pres.

FALL RIVER, MASS.—At a recent meeting of the stockholders of the Lincoln Mfg. Co. action was taken on the proposition of the directors to increase the capital by paying $100,000 in new capital and to authorize the directors to add 10,000 spindles to the plant. The proposition was unanimously adopted. The Lincoln is a fine goods mill with 50,000 spindles and $600,000 capital stock. Leontine Lincoln is Pres.

LOWELL, MASS.—The Bigelow Carpet Co. will build three mills along the edge of the Pawtucket Canal to replace a stretch of old buildings. The mills are to be numbered 17, 18 and 19, and the total cost of such construction as has been given permits at City Hall will be $135,000, and this includes two mills and the foundation of the third, so that the final construction will cost an additional sum. It is reported to be the intention of the company to erect in the future a series of mills in open spaces owned by the concern. The mill to be numbered 17 is to be a dye-house of two stories, and will measure 277 x 46 ft. 2 ins. The walls will be of brick, the floors of concrete and the construction will be completely fireproof. The foundation is the only part of this thus far given permit and is estimated to cost $5,000. No. 18 will join No. 17, but will be five stories, with brick walls and mill construction, the measurements being 124.9 x 46.2 ft. This will be a laboratory, dye, paint and belt shop and storage house. It will cost, as estimated, $60,000. No. 19 is to be another dye-house of three stories measuring 285.1 x 46.2 ft. The walls will be brick and the floors are to be concrete and the whole building made fireproof. This is estimated to cost $70,000.

NEW BEDFORD, MASS.—Plans for an addition to No. 3 Bennett Mill, at the foot of Coggeshall St., have been filed with the Inspector of Buildings by the New England Cotton Yarn Co., and the work will involve an expenditure of over $40,000. The plans, which were made by the engineering department of the New England Cotton Yarn Co., provide for the addition of another story to the mill, making it a 4-story structure 370 ft. long by 124 ft. in width. The contract for the work has been awarded to the B. F. SMITH CO. A temporary roof will be put over the present building to avoid any interference with the running of the mill while the addition is being built.

MERIDEN, CONN.—The contract for building an addition to the factory of the Kelsey Press Co., planned by D. Bloomfield, has been awarded to the H. WALES LINES CO., 134 State St., Meriden. The building will be of brick, 30 ft. square, and will include a 3-story fireproof vault.

JEWETT CITY, CONN.—The general contract has been awarded to the FLYNT CONSTRUCTION CO., of Palmer, Mass., for the proposed addition to the plant of the Ashland Cotton Co. The building was planned by Engineers Lockwood & Green, 93 Federal St., Boston, and will be of brick, 100 x 200 ft.

HARTFORD, CONN.—The B. H. HIBBARD CO., 162 Main St., New Britain, will erect a factory in Pliney St., Hartford, for the Sachs Co. It will be brick, heavy mill construction, 48 x 153 ft., two stories high. The plumbing, heating and electric work will be ready for estimates in about a week. George B. Allen is Arch and Engr.

The Hartford Machine Screw Co., Hartford, Conn., has had plans drawn for an addition to its plant on Capitol Ave. The present main factory, 32 x 210 ft., will be carried up two additional stories.

SOUTH NORWALK, CONN.—Enlargements are planned for the Simons factory by Cluett, Peabody & Co., manufacturers of men's shirts and collars, who recently purchased the plant. The factory now has three stories, of concrete block construction, and two more will be added. The company also will start as soon as practicable the erection of a concrete dry-room building on the north side of the plant. This will be one story, 70 x 22 ft. It is hoped to have the additions all built and in operation by Jan. 1.

NEW BRITAIN, CONN.—We are officially advised that the Corbin Screw Co., of New Britain, will erect an additional factory building. It will be of brick, 50 x 380 ft. Alternate bids for four and six stories will be received. The contract has been let to the B. H. HIBBARD CO., 162 Main St., Hartford.

BUFFALO, N. Y.—We are officially informed that H. Osgood Holland, Arch., 417 Mutual Life Bldg., has prepared plans for a 5-story and basement factory building, 45 x 110 ft., of brick and steel, fireproof, with electric elevator, steam heat, to be erected at the corner of Tenth, Division and Elm Sts. by Nathan Gutman & Co., 56-58 Pearl St. The owner will receive bids at once.

BUFFALO, N. Y.—The Pierce Arrow Motor Car Co., Buffalo, N. Y., has let a contract for three additional buildings in its manufacturing plant to the ABERTHAW CONSTRUCTION CO., 8 Beacon St., Boston, Mass. The buildings will be of reinforced concrete of fireproof factory construction. They are to be completed this fall, and will enable the company to increase its output of cars. The Pierce Arrow plant is located on the old Exposition grounds, and the new buildings for which the Aberthaw Construction Co. has the contract, will be located on the site of the old Midway. Lockwood, Green & Co., 93 Federal St., Boston, are Archs.-Engrs.

Plans have been prepared by G. Morton Wolfe, 638 Ellicott Sq. Bldg., for a 1-story brick-structural iron and concrete factory building, 80 x 300 ft., to be erected by the Standard Mirror Co., Harrison St. and Pennsylvania R. R. Estimated cost, $40,000. Wm. Lahodny is Pres., 63½ Carroll St.

The Adams & Rice Dairy Machinery Co. will add one story to its concrete block factory building, 50 x 150 ft., at Chandler St. and New York Central R. R. Belt Line.

SYRACUSE, N. Y.—Charles D. Wilsey, Arch., Nottingham Bldg., is preparing plans for a factory building to be erected by the H. E. Mills Mfg. Co., manufacturers of oils, etc., 324 New Rosenbloom Bldg. Estimated cost, $60,000.

AUBURN, N. Y.—The International Harvester Co. is having plans prepared and will build by day's work an addition to its paint shop, 50 x 190 ft., two stories of brick, mill construction and estimated cost, $20,000. Thomas H. Osborn is Pres., Auburn, N. Y.

ROCHESTER, N. Y.—The Menihan Shoe Co., manufacturers of womens' shoes, J. G. Menihan, Secy. and Treas., 178 North Water St., has let general contract to A. FRIEDERICHS & SONS CO., 106 Mill St., for erecting a 3-story brick factory, 45 x 235 ft., at the corner of Portland Ave. and Clifford St. Cost, $25,000. Leon Stern, 1017 Chamber of Commerce Bldg., is Arch.

HORNELL, N. Y.—The BURKE CONSTRUCTION CO., of Buffalo, has secured the contract for the construction of the plant of the De-Schaum-Hornell Motor Co., at Hornell, in which a number of Buffalo men are interested. The building, which will be of reinforced concrete, will be completed in ten weeks.

NEWARK, N. J.—Howes & Morse, Archs., 19 West 38th St., New York, are completing plans for the proposed plant which the Gillette Safety Razor Co., 18 Tremont St., Boston, Mass., is soon to erect at Evergreen and Frelinghuysen Aves., Newark, to cost between $100,000 and $200,000. There will be several buildings, measuring 200 x 50 ft., brick, fireproof, one story. The site has a ground area of 1,000 x 900 ft. Leonard Walde, 49 Wall St., New York, is Engr. No contracts have been issued. Grading is under way.

BETHLEHEM, PA.—It is stated that the Bethlehem Steel Corporation has prepared plans for construction work which will involve an outlay of $6,000,000. The company will build two blast furnaces in addition to the one in course of construction.

QUEEN JUNCTION, PA.—EDWARD EVERETT, of Pittsburg, Pa., has been awarded the contract to erect a plant for the S. H. Roberts Boiler & Tank Co., at Queen Junction, Butler County, to cost $20,000.

The contract to erect a main building and several smaller ones at Queen Junction have been let to the PENN BRIDGE CO. by the Keystone Tube Co. The larger building will be 80 x 207 ft.

PHILADELPHIA, PA.—FRED. A. HAVENS & CO., Perry Bldg., have a contract for a $25,000 addition to the plant of the Schutte & Koerting Co., at the southeast corner of Twelfth and Thompson Sts. The plans, by Otto C. Wolf, Arch., 1025 Arch St., provide for a 4-story structure, 45 x 85 ft., occupying the site of the three dwellings at 1239, 1241 and 1243 North Twelfth St., which have been acquired by the company.

UNION BRIDGE, MD.—We are officially advised that the Tidewater Portland Cement Co., 115 Broadway, New York (plant located at Union Bridge, 45 miles from the city of Baltimore), has retained the Fuller Engineering Co., Allentown National Bank Bldg., Allentown, to design and construct a lime plant, to be built in connection with the Portland cement plant. The plans are now being prepared and construction work will commence on the plant immediately.

BALTIMORE, MD.—Contracts have been let to the B. F. BENNETT BUILDING CO., 123 South Howard St., Baltimore, for the baking plant to be erected by the Peter Schmidt Vienna Bakery on the tract of land at Preston and Wolfe Sts. Plans for the building were prepared by and under the supervision of Owens & Sisco, Archs., Continental Trust Bldg., and these provide for a structure 248 ft. on Preston St. and 120 ft. on Wolfe St. It will be two stories high, with a basement, and will be equipped with the latest appliances and sanitary equipment for bread and cake baking. The company is located at Gilmor and Saratoga Sts.

HICKORY, N. C.—J. A. Martin, Pres. of the Gaston Mfg. Co., operating a $200,000 cotton factory at Cherryville, N. C., and interested in other plants, contemplates building a cotton mill at Hickory, N. C. He is reported to be completing arrangements for the organization of a stock company to build the Hickory plant.

CHARLOTTE, N. C.—The Mecklenburg Mfg. Co., R. L. Tate, Mgr., Charlotte, N. C., has decided upon additions to its present facilities for spinning yarns and weaving print cloth. It will erect a building to be occupied as an office and cloth house, and in the present structure the new machinery will be installed. The machinery will include 2,000 spindles and 50 looms, increasing the equipment to 15,000 spindles and 360 looms. These improvements will cost about $40,000.

REIDSVILLE, N. C.—The A. H. Motley Co. has been organized at Reidsville with a capital of $100,000, and incorporated for the purpose of establishing a plant for manufacturing chewing and smoking tobacco.

GEORGETOWN, S. C.—It is stated that a plant is to be established there by the E. I. Du Pont de Nemours Powder Co., 90 West St., New York, for the production of alcohol and by-products from the refuse lumber of the Atlantic Coast Lumber Corporation Mills. A plant costing in the neighborhood of $150,000 will be erected and operations will be begun as soon as same is completed.

ALBANY, GA. — JOHN H. LOWE, of Columbus, Ga., has secured the contract for the construction of the Albany Cotton Mills building at Albany, Ga., and the mill work contract has been placed with the DUDLEY SASH, DOOR & LUMBER CO., also of Columbus. Contract for the reservoir has been let to R. J. EDGERTON, of Albany. The buildings will include the main structure, four stories, 135 x 185 ft.; the 100 x 150-ft. cotton warehouse, 350-HP. plant house, 60 cottages for operatives, etc. There will be installed about 10,800 spindles, 280 looms, etc., for manufacturing sheeting and print cloth. Lockwood, Greene & Co., 93 Federal St., Boston, Mass., are the Archs.-in-Charge. The capitalization is $250,000.

COLUMBUS, GA.—We are officially advised that the Columbus Mfg. Co., of Columbus, Ga., will enlarge its plant. In order to provide funds, the company has increased its capital stock from $300,000 to $400,000 and issued bonds for $300,000. Lockwood, Greene & Co., 93 Federal St., Boston, Mass., have planned the improvements, which will call for a 272-ft. addition to the present 4-story, 128 x 272 ft. building of the plant. Probably 20,000 spindles and 600 looms will be the first installation. The following contracts have been let: Mill buildings, T. C. THOMPSON & BROS., Charlotte, N. C.; heating, the GREEN FUEL ECONOMIZER CO., Makawan, N. J.

ANNISTON, ALA.—At a recent meeting of the Board of Directors of the Anniston Yarn Mill, James T. Gardner, Gen. Mgr., was informed that the stockholders of the company had authorized an enlargement of the plant so as to double its capacity. Orders will be placed at once for the machinery necessary, and work on the addition to the building will be undertaken early next spring, and when it is completed 5,000 additional spindles will be placed in operation, increasing the value of the mill to over $200,000.

PARIS, TENN.—The officials of the Louisville & Nashville R. R. Co. have issued an order to erect a round-house and accessories at the shops here. Cost, $45,000.

WINCHESTER, TENN.—Miller Bros., of Winchester, Tenn., and W. B. Davis, of Chattanooga, Tenn., have decided to build a hosiery knitting mill at Winchester. They will use electric power and will employ about 200 persons. Contract has been made with the city of Winchester for the electricity.

LIMA, OHIO.—We are officially advised that the Ohio Steel Foundry Co., of Lima, has awarded a contract to the VARIETY IRON & STEEL WORKS, Hamilton and East 40th Sts., Cleveland, to erect two steel, concrete and glass buildings, 200 x 145 ft., as an addition to its steel plant. Cost of buildings, $58,000; equipment, $17,000. Plans have been prepared by the company's engineering department.

BOWLING GREEN, OHIO.—The Monarch Underwear Co. will enlarge the present brick factory in order to accommodate more machinery and employes. It has let a contract to JAY SIMMONDS for an additional story on the brick building on East Wooster St.

SEBRING, OHIO.—A company, to erect a brick manufacturing plant here, has been incorporated. The capital stock will be $300,000, and it is stated that a large part of this sum has been subscribed. Ross Rue, of Alliance, Ohio, is interested.

GIRARD, OHIO.—The Carnegie Steel Co., of Pittsburg, Pa., has decided on improvements and new mills in the vicinity of Youngstown, Ohio, to cost about $10,000,000. About 400 acres of land near Girard, Ohio, have been purchased as a site for new mills to enlarge the Ohio steel plants of the company. In addition the Carnegie Co. intends to erect some new finishing mills. The company will establish a hot metal route from Niles, Ohio.

CINCINNATI, OHIO.—Plans for the organization of the Tri-State Dairy Co., with a capital of $50,000, to operate a butter-making plant, were decided upon at a meeting of the Executive Committee of the Tri-State Dairy Farmers' Association, on Sept. 28.

The Nimmo Fence & Wire Works Co., Spencer Ave., Norwood, will soon close a deal for a tract of land in Norwood on which the company expects to build a plant, the land and building of which will reach a cost of approximately $25,000. The Norwood plant will be a 1-story building on a lot 125 x 240 ft.

SHELBYVILLE, IND.—The Clark Motor Car Co., recently incorporated, is in the market for complete equipment and machinery for a factory. G. B. Slaymaker, Arthur Woodard and J. W. Lovett are Directors.

NEW CASTLE, IND.—Bids are being asked by the Union Trust Co., receiver of the Indianapolis, New Castle & Toledo Electric Ry. Co., for the erection of car barns and shops in this city. Estimated cost, $50,000.

INDIANAPOLIS, IND.—The H. J. Martin Forging Co. will soon ask for bids for $20,000 worth of machinery to be installed in a factory being erected in Harding St. Augustus Jennings is Secy.

The Coesir Rim & Fire Co., recently incorporated, is in the market for $20,000 worth of machinery. J. L. Coesir, G. L. Fish and B. F. Robinson are Dirs.

SOUTH BEND, IND.—Plans for an addition to the plant of the H. C. Eckler Mfg. Co., 1306 South Franklin St., have been made public by officers of the company. A building 1½ times the size of the present factory will be erected. The building will be located to the west of the present factory and will be 120 ft. long and 40 ft. wide. It will be two stories high and will be of brick construction, as plans are made now. The company will continue to use its present factory and will have a plant with 16,000 sq. ft. of floor space when the new building is completed.

Walter Michael, City Clerk, has issued a building permit for M. V. Chesman & Co., for a $20,000 factory building to be built on Chestnut St.

CHICAGO, ILL.—According to the Chicago "Record-Herald," more than $1,000,000 will be spent by the Commonwealth-Edison Co. in erecting and equipping an addition to its plant on Quarry St. and the Chicago River. The building is to be a two and three-story structure and will cover a ground area 171 x 210 ft. The plans were made made by Shepley, Rutan & Coolidge, Archs., 206 La Salle St.

TAYLOR, TEX.—Kyle Boggs, of Dallas, Tex., State Gen. Mgr. for the THOMPSON CONSTRUCTION CO., of St. Louis, has arrived in the city to superintend the construction of the round-house and shops of the International & Great Northern, his company being the concern to which the railroad company awarded the contract of building the proposed $60,000 structures. J. C. Jacquez is Arch., Houston, Tex.

SEATTLE, WASH.—The Portland Flouring Mills Co. has purchased 2½ lots on the west side of Fourth Ave. South, between Atlantic and Massachusetts Sts., where it will erect a flouring mill to cost between $350,000 and $400,000. The plant will have a daily capacity of 1,500 bbls. of flour.

ETIWANDA, CAL.—The Arrowhead Portland Cement Co. has let a contract to EMERY SMITH CO., of San Francisco, Cal., to install a $600,000 cement plant on company's property near Etiwanda. The mill is to have a daily capacity of 1,000 bbls.

PORT COLBORNE, ONT.—The announcement has been made that a flour milling plant, with a capacity of 6,000 bbls. a day, is to be built at Port Colborne by the Maple Leaf and Hedley Shaw Milling Co. D. C. Cameron, of Winnipeg, Man., is Pres.

PORT ARTHUR, ONT.—The Municipal Commission on Street Railways has decided to erect a car-house at Port Arthur for its street railway which it operates in Port Arthur and Fort William.

MISCELLANEOUS CONTRACTS.

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

DITCH.—Oklahoma City, Okla.—Bids will be received until Oct. 18 for the construction of the Deep Fork drainage ditch, to consist of about 779,000 cu. yds. of excavation. Estimated cost, about 8 cts. per cu. yd.

DRAIN.—Farmersville, Ill.—Bids will be received until Oct. 16 by the Drainage Commissioners at Farmersville, for furnishing and laying drain tile, in all about 17,440 ft. of 6 to 24-in. tile. Estimated cost, $6,700.

LEVEE ENLARGEMENT.—Memphis, Tenn.—Bids are asked until Oct. 28 by the Mississippi River Commission, First and Second Districts, Maj. M. L. Walker, Corps Engrs., U. S. A., Memphis, for about 35,000 cu. yds. of levee enlargement.

DITCH. — Wheaton, Minn.—Contract for constructing Judicial Ditch No. 3, bids opened Sept. 11, has been awarded to BROWN & McGRAW, of Litchfield, Minn., at 6.98 cts. per cu. yd.; estimated cost, $13,283. Bids were given on Sept. 23.

DRAINAGE.—Chewelah, Wash.—Bids will be received until Oct. 18 by S. M. Brown, Chn. Commissioners Drainage District No. 3, at First National Bank, for constructing 17 miles of drainage system, involving 410,000 cu. yds. of excavation.

STONE.—Vicksburg, Miss.—No bids were received on Sept. 28 by Capt. Clarke S. Smith, Corps Engrs., U. S. A., Mississippi River Comn., Third Dist., Vicksburg, for furnishing about 15,000 cu. yds. stone and quarry spalls on barges delivered in this district.

DITCHES.—Sterling, Ill.—Bids will be received until Oct. 8 by the Drainage Commissioners of Union Drainage Dist. No. 2, of the towns of Montmorency and Coloma, at the law office of Frank J. Bowman, Sterling, for deepening and enlarging ditches in this district.

FIRE ENGINES, ETC.—New York, N. Y.—Bids are asked by Nicholas J. Hayes, Fire Comr., until 10.30 a. m., Oct. 15, for furnishing and delivering two fourth-size steam fire engines, and for furnishing and delivering three combination hook and ladder trucks and chemical engines.

STRUCTURES.—Montgomery, Ala. — Bids are asked by Robert Tait, City Treas., until Oct. 18 for construction of warehouse platform and superstructure of incline railway for city wharf; also for concrete substructure, 300 cu. yds.; also furnishing and installing hoisting machinery.

COMFORT STATION.—New York, N. Y.—Bids are asked until 3 p. m., Oct. 21, by the Park Board, Henry Smith, Pres., for the erection and completion of comfort stations and shelter for women and children, located in Chelsea Park, Ninth to Tenth Aves., 27th to 28th Sts., Manhattan.

IRON, STEEL, ETC.—New York, N. Y.—Bids are asked until noon, Oct. 18, by Allen N. Spooner, Comr. of Docks, for Contract No. 1187, for furnishing all the labor and materials required for furnishing and delivering iron, steel, machinery and miscellaneous tools and supplies and divers' supplies.

DREDGING.—Chicago, Ill.—Bids will be received until Oct. 8 by John J. Hanberg, Comr. Pub. Works, for furnishing material for dredging away or otherwise removing an obstruction to navigation in Lake Michigan consisting of the remnant of an old intermediate crib on the line of the 4-mile tunnel in the City of Chicago.

*DAM MACHINERY.—Cincinnati, Ohio.—Bids were received as follows on Sept. 20 by Col. W. T. Rossell, Corps Engrs., U. S. A., for furnishing and installing operating machinery at Dam No. 37, Ohio River: W. Dateson & Co., Wheeling, W. Va., $30,775, and New Jersey Foundry & Machine Co., New York, N. Y., $32,649.

CEMENT.—Leavenworth, Kan.—Contracts for furnishing 10,000 bbls. of Portland and 3,000 bbls. of natural cement for the U. S. penitentiary at Leavenworth have been awarded as follows: Portland cement to UNION SAND & MATERIAL CO., Kansas City, Kan., $9,100; natural cement to T. J. McDONALD, Leavenworth, Kan., at 74.5 cts. per bbl.

FIRE HOSE.—Washington, D. C.—Bids were received as follows on Sept. 28, by the Commissioners of the District of Columbia for furnishing 15,000 ft. of fire hose: Eureka Fire Hose Co., 13 Barclay St., New York, $12,000, $15,000; Gutta Percha & Rubber Mfg. Co., 126 Duane St., New York, $5,000; Fabric Fire Hose Co., New York, $15,000; National Electrical Supply Co., Washington, $10,305.

FIRE HOSE.—New York, N. Y.—Bids were received by Nicholas J. Hays, Fire Comr., on Sept. 29 for furnishing and delivering 30,000 ft. of 2½-in. cotton fabric rubber-lined hose. Contract for 15,000 ft., for Boroughs of Manhattan, Bronx and Richmond, was awarded to the EUREKA FIRE HOSE CO., 13 Barclay St., at $1.16 per ft. Contract for 15,000 ft., for Borough of Brooklyn and Queens, was awarded to the same company at $1.16 per ft.

*LEVEE, DITCH.—Caldwell, Tex.—Bids will be received by the Commissioners of Burleson County Improvement District No. 1, pursuant to conditions of Chapter 85, General Laws of Texas, 1909, until noon, Oct. 30, at the office of the County Clerk, Caldwell, for the construction of approximately 26 miles of levee and four miles of drain ditch. Preliminary estimate of quantities about 1,100,000 cu. yds., but subject to change. R. S. Newcome is Chn.

RAILINGS, ETC.—New York, N. Y.—Bids are asked by the Park Board, Henry Smith, Pres., until 3 p. m., Oct. 21, for furnishing and erecting iron railings around the grass plots in Broadway, between 104th and 110th Sts., Boro. of Manhattan.

Bids are asked by C. B. J. Snyder, Supt. School Buildings, Dept. of Education, until 4 p. m., Oct. 18, for the erection of new iron railings, folding gates, etc., at Public School No. 27, St. Ann's Ave., 147th and 148th Sts., Boro. of the Bronx.

TUNNEL.—Chicago, Ill.—Bids for the reconstruction of the Washington St. Tunnel, Sec. 2, between Canal and Franklin Sts., were received as follows by the Chicago Rys. Co. on Sept. 22: (a) for an entire new tunnel, (b) for a tunnel utilizing the roof as constructed, (c) independent plan using compressed air in tunneling: FitzSimons & Connell, (a) $746,975; GEO. W. JACKSON, Inc., 169 West Jackson Boulevard, (a) $809,390, (b) $741,170, (c) $590,000 (awarded contract); M.H. McGovern Co., (a) $908,397, (b) $896,008; Gindele Bros., (b) $475,000; Empire Construction Co., (b) $800,510.

*BARGE CANAL.—Albany, N. Y.—One bid was received by F. C. Stevens, Supt. of Public Works, on Oct. 5th, on Barge Canal Contract No. 2-E, which is for completion of the construction of the canal from Mohawk River at Waterford to a point one-quarter of a mile above the head of Lock No. 3, the work being that portion of Contract No. 2 which was unfinished at the time the original contractor, the Ferguson Contracting Co., of New York, withdrew from the contract. The new bid was submitted by the Ferguson Co. at $289,464. The Engineer's estimate is $263,189. Bids were received at the same time for Contract No. 43, for constructing the canal from a point just east of Oriskany Road to about 1,500 ft. west of Mud Creek, a distance of 10.32 miles. The excavation called for amounts to more than 5,000,000 cu. yds. The lowest bidders were M. A. Talbot & Co., Baltimore, Md., at $1,320,560. The engineer's estimate for the contract is $1,529,885. Frank M. Williams is State Engr. and Surveyor.

EXAMINATIONS.

AID IN GRAIN STANDARDIZATION.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Oct. 20, to secure eligibles from which to make certification to fill vacancies in the position of aid in grain standardization (male), Bureau of Plant Industry, Department of Agriculture, at salaries ranging from $900 to $1,200 a year, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill any or all vacancies by reinstatement, transfer, or promotion. Grain laboratories are situated in the following-named cities: Baltimore, Chicago, Duluth, Minneapolis, New Orleans, and St. Louis. Men only will be admitted to this examination. Age limit, 20 years. Application form 1312.

ENGINEER DRAFTSMAN. — Washington, D. C.—The U. S. Civil Service Commission announces an examination on Oct. 27-28, to secure eligibles from which to make certification to fill three vacancies in the position of Engineer Draftsman at salaries ranging from $1,600 to $1,800 a year each, in the Office of the Supervising Architect, Treasury Department, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill any or all of the vacancies by reinstatement, transfer, or promotion.

The duties of the position are confined to engineering problems in first-class building construction. The examination will consist of practical questions based upon the work required, particular attention being paid to fireproofing and designing in steel and in reinforced concrete. Applicants must have had not less than five years' practical experience, of which at least two years should be in either steel designing or construction work. A degree in civil engineering from a technical school of recognized standing will be considered as equivalent to not more than two years of the five years above mentioned. The papers of those who fail to receive at least 70% in experience will not be marked. The written examination will count 60%, and training and experience 40%. Two days will be required for the examination. The minimum salary paid will be $1,600, but those whose superior experience and ability justify it will receive more. Age limit, 18 years. Application form 1312.

ENGINEER.—West Point, N. Y.—An examination will be held by the U. S. Civil Service Commission on Oct. 27 to secure eligibles from which to make certification to fill a vacancy in the position of engineer of power plant, $1,200 a year, United States Military Academy, West Point, N. Y., and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill the vacancy by promotion, reinstatement, or transfer. Age limit, 20 years or over. Application Form 1093 from the Commission, Washington, D. C.

INDUSTRIAL NOTES.

THE KEUFFEL & ESSER CO., Hoboken, N. J., advises us that the "Grand Prize" has been awarded to the company on all its line at the Alaska-Yukon-Pacific Exposition.

THE SIXTH ANNUAL CONVENTION and Cement Show of the Northwestern Cement Products Association will be held at St. Paul, Minn., March 1-5, 1910. It will be located in the new St. Paul Auditorium, a building amply large to house such an exhibition.

THE ELECTRO-MECHANICAL ENGINEERING BUREAU, of Chicago, announces its removal to new offices at 607 Manhattan Building, and states that it is enlarging its laboratory facilities. It undertakes electrical, chemical and mechanical investigations.

THE CONTRACT for placing concrete piles for the public swimming pool that is being built at the foot of Franklin St., St. Louis, for the Board of Public Improvements, of that city, has been awarded to the Raymond Concrete Pile Co., of New York and Chicago. The Fruin-Colnon Contracting Co. is the general contractor.

BAKER & COLLOM, manufacturers of woodworking machinery, pumping machinery and hoisting engines.—On account of the recent death of Mr. H. C. [illegible]er, the partnership is dissolved and future business will be conducted in the name of [illegible] A. Collom & Co., at the same address, [illegible] Walnut St., Philadelphia, Pa.

THE PIERCE ARROW MOTOR CAR CO., Buffalo, N. Y., has placed contract for three additional buildings in their manufacturing plant with the Aberthaw Construction Co., of Boston, Mass. The buildings, as are all the other buildings of their plant, will be of reinforced concrete of high class, fireproof factory construction. They are to be completed this fall, and will enable the company to increase its output of cars. The Pierce Arrow plant is located on the [illegible] Exposition grounds, and the new buildings for which the Aberthaw Construction Co. has the contract, will be located on the site of the old Midway.

(Continued on page [illegible].)

CONTRACT PRICES.

(* *denotes that this work is advertised in Engineering News.*)

PAVING.—Seattle, Wash.—Following are the itemized bids received on Sept 17 for paving 23d Ave., etc., from (A) [illegible] McLellan, Burke Block, Seattle, Wash.; (B) P. J. McHUGH, 17th St., Seattle, Wash. (awarded contract); (C) Barber Asphalt Paving Co., White Bldg., Seattle, Wash.; (D) A. R. Gibson, Seattle, Wash.; (E) Independent Asphalt Paving Co., Pioneer Bldg., Seattle, Wash.:

	(A)	(B)	(C)	(D)	(E)
Fixed estimate	$4,700.00	$4,700.00	$4,700.00	$4,700.00	$4,700.00
Clearing and grubbing (lump sum)	1,500.00	2,250.00	5,000.00	1,180.00	1,500.00
22,500 cu. yds. sub-grading	.40	.30	.50	.50	.48
677 lin. ft. curb, curved granite	1.70	1.75	1.80	1.80	1.75
40 lin. ft. curb, straight granite	1.60	1.60	1.50	1.70	1.50
1,705 lin. ft. curb, curved armored concrete	.70	.65	.70	.75	.55
32,938 lin. ft. curb, straight concrete	.32	.31½	.35	.35	.30
1,622 lin. ft. curb, str'ght armored concrete	.70	.65	.70	.60	.55
51,335 sq. yds. asphalt paving	1.60	1.50	1.69	1.70	1.50
3,016 sq. yds. sandstone block paving	3.50	3.50	3.70	3.90	3.50
61 sq. yds. alley crossing, concrete	1.20	1.20	1.30	1.50	1.40
2,400 sq. yds. concrete walks	1.00	1.10	1.00	1.00	1.00
50 sq. yds. concrete walk repairing	1.00	1.25	1.25	1.25	1.20
560 lin. ft. wood stops	.40	.40	.30	.40	.40
14 catch basins, 1 inlet	50.00	55.00	70.00	60.00	55.00
6 catch basins, 2 inlets	60.00	70.00	85.00	65.00	65.00
4 catch basins, no inlet	45.00	55.00	60.00	40.00	40.00
3 catch basins to be moved	25.00	25.00	80.00	25.00	20.00
3 catch basins to be rebuilt	15.00	20.00	35.00	30.00	20.00
6 new inlets	15.00	10.00	15.00	10.00	15.00
69 inlets to be moved	5.00	2.50	5.00	2.50	3.00
30 inlets to be adjusted	3.00	2.00	2.00	2.00	3.00
110 manhole and catch basin covers, adjusted	2.00	2.00	2.50	2.00	2.00
32 monument cases	8.00	7.75	8.00	8.00	8.00
7,300 lin. ft. 6" side sewer connections	.90	.70	1.10	1.00	1.00
900 lin. ft. 3" sewer pipe	.15	.20	.20	.25	.25
300 sq. yds. concrete block wall, new	2.70	5.00	2.50	.75	2.00
50 sq. yds. concrete block wall rebuilt	.75	4.00	1.50	.40	.50
130 cu. yds. concrete wall	8.00	7.00	8.00	7.00	8.00
830 lin. ft. concrete stairs	.80	1.25	.80	.45	1.00
140 lin. ft. concrete stair buttresses	1.00	7.00	.60	.45	1.50
25 M. ft. B. M. new lumber	18.00	17.50	18.00	20.00	18.00
40 M. ft. B. M. relaying old lumber	7.00	5.00	5.00	5.00	5.00
25 track inlets	6.00	12.00	10.00	7.00	15.00
100 cwt. coal for roller	.70	.50	.50	.50	.50
115 trees rest (shade)	15.00	1.00	25.00	5.00	4.00
2,400 lbs. special castings	.06	.07	.06	.08	.06
1 8" gate valve	30.00	25.00	25.00	25.00	30.00
7 hydrants	85.00	75.00	75.00	100.00	90.00
84 lin. ft. 6" c.-i. pipe, "A" hyd. conns.	1.00	1.30	1.30	1.50	1.00
20 brick gate chambers	50.00	35.00	35.00	25.00	30.00
1 cast-iron valve box	8.00	20.00	5.00	2.50	5.00
200 lin. ft. ¾" galv. iron pipe, hyd. drain.	.29	.30	.50	.50	.50
11 resetting hydrants	15.00	25.00	25.00	20.00	25.00
Totals	$141,280	$133,293	$156,373	$148,852	$136,200

WATER MAINS.—Seattle, Wash.—Bids were received as follows on Sept. 10 by the Board of Public Works for laying water mains in Spokane St. and other streets: (A) BADENHAUSEN & HULL, $180,611 (awarded contract); (B) International Contract Co., Central Bldg., Seattle, $181,673; (C) Paul Steenstrup, Seattle, $194,605. R. H. Thomson is City Engr.

	(A)	(B)	(C)
Fixed estimate	$2,000.00	$2,000.00	$3,000.00
1,350 lin. ft. 36" lock bar steel pipe, 5/16-in"	10.00	8.45	14.00
3,150 lin. ft. 30" c.-i. pipe, Class "B"	9.85	9.80	10.50
1,550 lin. ft. 24" c.-i. pipe, Class "B"	6.95	6.50	7.50
8,650 lin. ft. 20" c.-i. pipe, Class "B"	5.66	5.00	6.00
1 20" crossing west waterway	18,000.00	16,000.00	12,000.00
200 lin. ft. 16" c.-i. pipe, 1" thick shell	5.77	4.20	4.00
650 lin. ft. 16" c.-i. pipe, "B"	4.15	3.90	4.00
3,750 lin. ft. 16" c.-i. pipe, "A"	3.96	3.60	4.00
100 lin. ft. 8" c.-i. pipe, "A"	1.35	1.58	2.00
250 lin. ft. 2" galvanized pipe	.40	.35	.30
1 4" air valve, 4" gate valve and saddle	100.00	85.00	100.00
2 24" gate valves, double flange	370.00	298.97	400.00
4 20" gate valves, double flange	270.00	206.50	300.00
1 20" gate valve, double bell	300.00	199.50	250.00
6 12" gate valves, double flange	55.00	47.50	80.00
6 8" gate valves, double flange	28.00	23.25	60.00
3 6" relief valves	48.00	36.50	50.00
1 10" gate valve, outside screw	122.00	105.00	140.00
1 12" gate valve, outside screw	148.00	118.75	160.00
2 Bristol pressure recording gages	75.00	50.00	100.00
13 hydrants, 8" conns., 4 ft. bbl.	135.00	138.00	150.00
6 addl. length of hyd. bbl. per 6"	5.00	1.50	5.00
24 lin. ft. 8" c.i. pipe, hyd. conn.	1.50	1.46	2.00
150 lin. ft. 8" lap welded G. S. pipe	2.00	1.91	2.00
50 lin. ft. 6" lap welded G. S. pipe	1.10	1.08	1.25
2,000 lbs. special castings	.08	.08	.10
200 cu. yds. extra excavation	.10	1.00	1.50
90 cu. yds. extra excavation (tile drain)	.75	1.00	1.00
45,000 lin. ft. piling	.15	.32	.20
430 M. ft. B. M. lumber in bridge and towers	18.00	32.00	25.00
3 M. ft. B. M. box drain lumber	22.00	25.00	25.00
5 M. ft. B. M. valve box lumber	22.00	25.00	25.00
225 cu. yds. concrete in piers and anchors	10.00	10.00	12.00
225 cu. yds. concrete in footings and foundation	10.00	10.00	12.00
102,000 lbs. shackles and rods, inc. nuts, etc.	.06	.10	.10
23,000 lbs. bolts, including nuts	.06	.06	.10
4,000 lbs. cast-iron washers	.04	.04	.10
1 pump house (special)	1,200.00	1,200.00	15.00
1 pump as specified	1,800.00	2,650.00	2,500.00
1 electric motor as specified	1,500.00	1,536.00	1,000.00
1 switchboard installed	650.00	432.00	600.00
Wiring at pump house (lump sum)	100.00	171.00	100.00
4,000 lbs. pump connections	.07	.10	.10
6 tanks, 24' diameter, 16' high	750.00	500.00	800.00
100 lin. ft. 10" sewer pipe, inc. "Y's"	.60	2.00	2.50
50 lin. ft. 6" sewer pipe, inc. "Y's"	.50	1.50	1.00
50 lin. ft. 4" sewer pipe, inc. "Y's"	.25	1.50	.50
100 lin. ft. 4" tile drain	.25	1.50	.50
300 lin. ft. 4" tile drains in steel pipe trench	.80	1.50	.50
Total	$180,611	$181,678	$194,605

*SEWERS.—Louisville, Ky.—Bids were received by the Commissioners of Sewerage of Louisville on Sept. 24, for construction of Sections B-1, B-2, C and D of the Northwestern Sewer, Contracts Nos. 53, 54, 55 and 48. W. C. Nones is Chn.; J. B. F. Breed is Ch. Engr. The bids in detail were as follows: (A) E. A. Barker & Son, Louisville; (B) B. C. Milner Sons & Co., Louisville; (C) Louisville Contracting Co., Louisville; (D) Jas. Ferry & Sons, Crafton, Pa.; (E) American Engineering & Construction Co., Chicago; (F) T. J. O'Connell, Louisville; (G) James Duff Construction Co., Cleveland, Ohio; (H) E. G. Nave Bros. Co., Portsmouth, Ohio; (I) C. F. Fitch & Co., Louisville; (J) Blackstaff Engineering Co., Philadelphia; (K) T. B. Jones & Co., St. Louis, Mo.; (L) D. W. Curtin, Lynchburg, Va.

Section B, Northwestern Sewer, Contract No. 53:

	(G)	(I)	(F)	(J)	(K)	(L)
1,420 lin. ft. earth excavation....	$24.75	$27.70	$27.00	$25.26	$32.24	$40.00
2,244 lin. ft. earth excavation.....	11.50	14.65	16.00	12.34	16.35	19.00
1,000 cu. yds. rock excavation....	4.00	3.50	4.00	5.00	5.35	6.00
5,770 cu. yds. Class A concrete...	8.35	8.00	8.00	9.85	9.50	10.00
150 sq. yds. vit. brick paving....	2.00	1.80	5.00	2.10	25.00	2.25
1,056,600 lbs. plain steel bars.........	.08	.03	.03	.035	.036	.035
900,000 lbs. deformed steel bars....	.03	.03	.032	.036	.035	.0375
900,000 lbs. deformed steel bars....	.08	.03	..	..	.0355	.04
20 cu. yds. exca. below masonry	4.00	2.00	3.00	2.00	1.75	2.25
20 cu. yds. gravel refill.........	2.50	2.00	3.00	2.00	1.75	2.50
Vitrified pipe, list price, $458.50.....	50% off	60% off	50% off	50% off	40% off	60% off
	229.25	183.40	229.25	229.25	275.10	183.40
1,000 lin. ft. 8-in. underdrain....	.40	.40	.40	.40	.40	.40
Cleaning up, lump sum..............	550.00	1,500.00	100.00	3,000.00	1,832.00	2,000.00
Total......................	$144,558	$154,027	$157,702	$165,080	$183,633	$203,133

Section B-2, Northwestern Sewer. Contract No. 54:

	(I)	(G)	(F)	(J)	(K)	(L)	(E)
2,723 lin. ft. earth excavation....................	$13.85	$12.50	$15.00	$13.00	$14.95	$20.50	$24.00
10 cu. yds. rock excavation....................	3.50	4.00	6.00	10.00	5.35	6.00	10.00
3,550 cu. yds. Class A concrete....................	8.30	9.80	8.00	9.50	9.50	9.75	9.00
45 sq. yds. vitrified brick paving..............	1.85	2.00	5 00	2.25	25.00	2.50	4.00
397,600 lbs. plain steel bars..................	.03	.03	.03	.035	.036	.035	.03
372,800 lbs. deformed steel bars..............	.03	.03	.0?2	.036	.035	.0375	.03
372,800 lbs. deformed steel bars..............	.03	.03	...	....	.0355	.0375	.03
50 cu. yds. excavation below masonry..........	2.00	.90	3.00	2 00	1.75	2.50	5.00
50 cu. yds. gravel refill	2.00	2.25	3.00	2.00	1.75	2.50	2.00
Vitrified pipe, list price $784.80..............	60% off	50% off	50% off	50% off	40% off	60% off	60% off
....	313.92	392.40	392.40	392.40	470.88	313.92	313.92
800 lin. ft. 8-in. underdrain	.40	.40	.50	.40	.50	.50	.40
Cleaning up, lump sum	750.00	100.00	100.00	2,000.00	1,361.50	2,000.00	1,000.00
Totals	$80,065	$81,111	$82,652	$85,658	$91,068	$107,486	$110,750

Section C. Northwestern Sewer, Contract No. 55:

	(G)	(B)	(F)	(D)	(J)	(C)	(E)	(H)
1,727 lin. ft. earth excavation............	$8.00	$10.00	$12.00	$9.90	$10.10	$13.50	$16.00	$16.00
3,118 lin. ft. earth excavation............	6.75	8.00	9.00	8.90	9.50	9.75	9.00	12.00
3,630 cu. yds. Class A concrete..........	9.70	8.30	8.00	9.75	9.60	8.40	9.00	10.00
60 sq. yds. vitrified brick paving.......	2.00	1.85	5.00	2.00	2.10	3.00	4.00	3.00
274,500 lbs. plain steel bars	.03	.03	.03	.035	.035	.03	.03	.03
257,300 lbs. deformed steel bars..........	.03	.03	.032	.035	.036	.032	.03	.04
257,300 lbs. deformed steel bars..........	.03	.03	..	.035	..	..	.03	.0425
100 cu. yds. Excavation below masonry..	.80	2.00	3.00	2.00	2.00	2.00	5.00	2.50
100 cu. yds. gravel refill..............	2.25	2.00	3.00	3.00	2.00	2 00	2.00	2.50
Vitrified pipe, list price $1,174.60..........	50% off	60% off	50% off	60% off	50% off	65% off	60% off	60% off
	587.30	469.84	587.30	469.84	587.30	411.11	469.84	469.84
1,500 lin. ft. 8-in. undredrain	.40	.40	.50	.50	.35	.40	.40	.50
Cleaning up, lump sum...................	100.00	750.00	100.00	3,000.000	1,500.00	500.00	1,000.00	1,500.00
Totals	$79,505	$82,393	$88,397	$94,085	$94,313	$94,532	$99,093	$112,983

Section D, Northwestern Sewer, Contract No. 48:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
3,599 lin. ft. earth excavation............	$6.75	$7.75	$8.25	$7.85	$9.00	$10.00	$9.95	$10.00
70 cu. yds. earth exca. for fire cistern..	1.00	1.80	2.50	2.25	2.00	2.00	1.00	3.00
1,900 cu. yds. Class A Concrete..........	9.25	8.30	8.50	8.90	9.50	8.00	9.80	10.00
18 cu. yds. Class B Concrete..........	12.00	9.00	16.00	15.00	10.00	10.00	20.00	20.00
220,000 lbs. plain steel bars..............	.035	.03	.029	.035	.03	.03	.03	.03
216,000 lbs. deformed steel bars............	.035	.03	.03	.035	.03	.032	.03	.04
216,000 lbs. deformed steel bars............	.035	.03	....	.035	.03	..	.03	.0425
20 cu. yds. excavation below masonry..	2.00	2.00	2.00	2.00	2.00	4.00	1.00	2.50
20 cu. yds. gravel refill..............	2.00	2.00	2.00	2.00	2.00	4.00	2.25	2.50
Vitrified pipe, list price, $1,544..............	65% off	60% off	65% off	60% off	60% off	50% off	50% off	60% off
	540.40	617.60	540.40	617.60	617.60	772.00	772.00	617.60
1,000 lin ft. 8-in. underdrain..............	.35	.35	.35	.35	.35	.35	.35	.35
Cleaning up, lump sum................	800.00	750.00	400.00	800.00	500.00	100.00	250.00	500.00
Total................	$51,485	$52,228	$54,155	$54,997	$58,789	$59,804	$62,777	$63,728

SEWAGE DISPOSAL PLANT.—Wernersville, Pa.—Bids were received by the Trustees of the State Asylum for Chronic Insane, Henry M. Dechard, Secy., on Sept. 14, for the construction of a sewage disposal plant, and connections to exisitng sewer system at the institution. The bids in detail were as follows: (A) W. H. Opperman, Harrisburg, Pa.; (B) New York Sewage Disposal Co., 1 Madison Ave., New York; (C) E. E. Bratton, Lewiston and Philadelphia, Pa.; (D) Field, Barker & Underwood, Inc., Arcade Bldg., Philadelphia; (E) J. N. Bastress & Co., Harrisburg; (F) P. L. Scholl, Reading, Pa.; (G) O'Toole & Dempsey, Philadelphia; (H) Thomas & Watkins, Woodbury, N. J.; (I) W. H. Mengeringhausen, Catasauqua, Pa.; (J) Engineer's estimate:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
300 cu. yds. concrete, Class "A"...............	$13.00	$6.00	$7.25	$9.00	$8.75	$9.00	$8.00	$8.00	$7.00	$10.00
400 cu. yds. concrete, Class "B"...............	7.50	5.90	6.70	7.00	8.50	8.50	7.00	6.50	6.50	9.50
200 cu. yds. concrete, Class "C"...............	10.00	5.60	5.00	6.00	7.50	8.00	6.00	5.50	6.00	7.50
40,000 lbs. steel reinforcement...............	.03	.02	.03½	.04½	.03	.04	.04½	.03	.03	.04
400 sq. ft. rib metal, No. 4...............	.06½	.06	.06½	.07½	.05	.05	.05½	.08	.05½	.06
6,000 sq. ft. rib metal, No. 6...............	.05	.07	.05	.06	.04	.06¼	.06½	.07	.04½	.05½
600 cu. yds. sand	2.00	2.00	2.00	2.50	2.10	2.25	2.20	2.25	2.75	2.00
1 syphon for dosing tank (lump sum).........	135.00	200.00	140.00	150.00	178.00	175.00	160.00	200.00	135.00	280.00
3,000 lbs. c.-i. grating	.04¼	.07	.04	.04	.03¼	.03½	.04	.05	.03½	.04
Appurtenance for settling tank..............	309.00	500.00	600.00	550.00	475.00	800.00	760.00	920.00	563.02	675.00
50 c.-i. manhole frames and covers............	11.00	15.00	6.25	10.00	9.50	7.00	10.50	10.00	20.00	11.60
400 manhole steps (each)...............	.44	.20	.20	.45	.22½	.20	.55	.31	.20	.20
100 ft. 12" supply to sprinkling filter...........	.93½	.45	1.10	.90	1.40	1.12	1.00	.60	2.45	.50
100 ft. 18" half tile	.48	.50	.35	.45	.45	.40	.40	.30	.50	.30
6,000 6" half tile	.07¼	.08	.06	.09	.08	.09½	.07	.10	.10	.07
50 c.-i. risers in filters (each)...............	3.47	3.00	2.50	5.25	2.40	3.28	4.25	5.00	2.50	3.10
1 chemical dosing house (lump sum).........	620.00	1,200.00	820.00	750.00	832.00	850.00	720.00	70.00	1,130.00	850.00
1 orifice box (lump sum)...............	55.00	125.00	50.00	70.00	40.00	45.00	75.00	50.00	60.00	40.00
1 chemical mixing tank (lump sum)...........	82.00	25.00	50.00	30.00	50.00	35.00	85.00	55.00	40.00	50.00
40 tons c.-i. piping	57.00	40.00	37.50	43.00	40.00	42.00	40.00	31.50	42.00	40.00
6,000 lbs. c.-i. std. specials...............	.05¼	.05	.06½	.05	.04½	.05	.05	.08	.03¾	.04½
7,000 lbs. c.-i. flange specials...............	.058	.06	.07½	.08½	.06½	.07	.05	.08	.05½	.06
300 ft. 12" t. c. pipe...............	.54	.30	.40	.40	.41	.50	.45	.40	.45	.35
3,000 ft. 10" t. c. pipe...............	.35	.26	.27	.30	.35	.40	.36	.34	.33	.30
300 ft. 8" t. c. pipe...............	.34	.17	.20	.25	.25	.35	.25	.25	.22	.25
900 ft. 6" t. c. pipe...............	.24	.15	.14	.16	.20	.30	.18	.20	.13	.20
50 sprinkling nozzles (each)	3.70	3.25	3.75	3.75	3.50	3.30	3.25	3.30	4.00	3.00
1 pump and engine (lump sum)...............	816.00	1,200.00	700.00	900.00	720.00	750.00	900.00	350.00	960.00	800.00
1 hand pump (lump sum)	42.00	60.00	63.00	40.00	16.00	28.00	70.00	42.00	18.00	15.00
4,000 ft. 2'. water line	.30	.20	.22½	.25	.20	.20	.21	.23	.21	.25
1 8" hub gate valve...............	34.00	37.00	21.00	20.00	25.00	48.50	19.00	22.00	25.20	25.00
6 6" hub gate valves (each)...............	21.00	25.00	15.00	12.00	17.50	34.40	12.50	17.50	18.75	19.00
1 4" hub gate valve	17.00	22.00	9.00	8.00	9.00	31.00	9.00	12.00	14.00	12.00
8 4" flanged gate valves (each)...............	13.00	15.00	10.00	9.00	11.00	11.00	11.50	13.50	19.80	12.00
8 ⅝" brass valves (each)...............	7.00	3.00	1.00	1.50	.70	1.45	1.50	1.00	1.00	1.00
5 8" sluice gate valves (each)...............	35.00	40.00	30.00	30.00	30.00	20.00	21.00	28.00	30.00	30.00
9 6" sluice gate valves (each)...............	29.00	37.00	25.00	25.00	22.50	13.25	17.00	25.00	26.00	23.00
1 8" shear gate valve	31.00	25.00	25.00	20.00	18.00	20.00	30.00	22.00	32.00	25.00
4 6" shear gate valves (each)...............	24.00	20.00	23.00	18.00	15.00	12.65	20.00	15.00	28.00	20.00
400 sewer rods (lump sum)...............	125.00	150.00	100.00	75.00	375.00	107.87	140.00	80.00	76.00	100.00
80 concrete manholes (per ver. ft.)...............	6.50	10.00	6.25	5.00	5.00	5.50	3.00	5.00	4.00	4.50
Total	$22,764	$19,078	$18,265	$20,785	$20,160	$21,532	$19,999	$18,465	$20,042	$21,476

INDUSTRIAL NOTES.

(Continued from page 128.)

THE ALLIS-CHALMERS CO., of Milwaukee, Wis., announces that Mr. H. C. Holthoff, formerly manager of the company's office in Mexico, has been appointed manager of the mining machinery department, with headquarters at Milwaukee. He succeeds Mr. W. L. Loveland, who has taken a position as General Manager of the Mine & Smelter Supply Co.

THE GAS-ENGINE PUMPING PLANT of the Sistersville, W. Va., water-works is being enlarged by the addition of a 100-HP. vertical Westinghouse gas engine, driving a triplex pump through a friction clutch. Natural gas is used, having a fuel value of approximately 1,000 B. T. U. per cu. ft., and costing 15 cts. per 1,000 cu. ft. The existing equipment of this pumping station comprised an 85-HP. Westinghouse vertical engine.

THE ORLEANS COUNTY QUARRY CO., Albion, N. Y., announces a change in its management. Mr. Howard E. Kilborn, Jr., Treasurer, and Mr. Edward F. Fancher, General Manager, having resigned their positions and severed their connection with the company, Mr. Schuyler Hazard has been appointed General Manager and Chief Engineer, and placed in full and responsible control of all of its affairs in Orleans County, New York. This includes production, sales and engineering.

THE TOLEDO-MASSILLON BRIDGE CO. has adopted a novel method of making its customers and others familiar with the appearance and facilities of the company's structural plant, located at Toledo, Ohio. It is distributing a new instrument, known as a "corte-scope," which is practically an old-fashioned stereoscope with a series of views mounted in a case upon the slide in panoramic form, so that, by turning a thumbscrew, one after another of the stereoscopic views is brought into the field of vision. The instrument is an ingenious one, and shows the company's plant in a very attractive way.

THE FOUNDATION COMPANY, 115 Broadway, New York City, is now at work upon a contract covering the installation of four additional pneumatic caissons for the foundations in connection with the terminal of the Chicago & Northwestern R. R. Co., at Chicago. These caissons will be sunk to a depth of 110 ft. below the curb and are for the support of a large smokestack connected with the power-house at the railroad station. This is the second contract the Foundation Company has had for this building. A contract was recently finished involving the installation of 87 caissons for the support of the main building of the Terminal Station.

THE HUDSON TERMINAL CONSTRUCTION CO. has been formed, the organizers of which are as follows: W. H. Van Winkle, President of the Water Works Equipment Co., 50 Church St., New York City; Alvin Bugbee, Supt. of Water-Works, Trenton, N. J.; James W. Burnie, Supt. Biddeford & Saco Water Co., Biddeford, Me.; J. F. Gleason, Supt. of Water-Works, Quincy, Mass. The main office of the company is located at 50 Church St., Rooms 1950-51, New York City, and the officers are: Pres., W. H. Van Winkle; Vice-Pres., J. F. Gleason; Secy., J. W. Burnie; Treas., A. Bugbee. The company has been organized to construct water-works of all descriptions, and have just been awarded a $10,000 contract for the laying of water mains at Stonington, Me.

SEVERAL LARGE ORDERS for direct-current apparatus have recently been received by the Crocker-Wheeler Co., of Ampere, N. J. Among these is one from the Southern Iron & Steel Co., of Roger, Ga., calling for two 250-KW., engine type, 550-volt, direct-current generators and 275-HP. in 500-volt D. C. motors. This is in addition to a recent order for 1,450 KW. in engine type generators and 1,200 HP. in slow-speed motors from the same concern. The Republic Iron & Steel Co., Youngstown, Ohio, placed an order for a 600-KW., engine type, 250-volt, direct-current generator, which will be added to a plant consisting of two 300-KW. Crocker-Wheeler generators. Another order has been booked from the Nonquit Spinning Co., New Bedford, Mass., covering 375 KW. in 250-volt Crocker-Wheeler Type D, direct-current generators. One 250-KW., 250-volt, engine type, direct-current generator and two 50-HP. motors are to be installed in a woolen mill for the Southwark Mills Co., of Philadelphia, Pa. Two 75-KW., engine type, 125-volt, direct-current generators will be installed in the factory building of Goodman, Loeb & Co., Philadelphia, Pa.

TRADE PUBLICATIONS.

SURVEYING INSTRUMENTS.—Bausch & Lomb Optical Co., Rochester, N. Y. Paper; 3 × 6 ins.; illustrated.

The distinctive features in the design and construction of Bausch & Lomb engineering instruments are set forth in this folder.

ASBESTOS ROOFING.—H. W. Johns-Manville Co. Catalog 303. Paper; 4½ × 7 ins.; pp. 52; illustrated.

"J.-M." asbestos roofing is described in this catalog, which contains also pictures of a number of buildings roofed with it and price-lists.

BLUEPRINT PAPERS.—Keuffel & Esser Co., 127 Fulton St., New York City. Paper; 5¾ × 8¾ ins.; pp. 3; illustrated.

Various blueprint papers and blueprint cloth made by the Keuffel & Esser Co., are listed in this circular, which gives brief descriptions and prices.

GENERATORS AND SYNCHRONOUS MOTORS.—Wagner Electric Mfg. Co., St. Louis, Mo. Paper; 8 × 10½ ins.; pp. 12; illustrated.

This pamphlet relates to revolving-field belt-driven generators, and describes their special features and the special advantages claimed.

METALLIC PACKING.—H. W. Johns-Manville Co., 100 William St., New York City. Paper; 4½ × 7 ins.; pp. 8; illustrated.

Morris metallic packing for stationary and marine engines and Morris rotary valve-stem packing are described in this pamphlet.

PURE BOILER-FEED WATER.—Wm. B. Scaife & Sons Co., 221 First Ave., Pittsburg. Paper; 6 × 9 ins.; pp. 16.

"Scaling and Corroding Substances and Their Elimination from Water for Boilers" is the title of this pamphlet, which proves to be a reprint of a paper before the Scranton Engineers' Club by Mr. J. C. W. Greth, who is manager of the water purifying department of the company publishing the reprint.

RECORDING THERMOMETERS.—The Bristol Co., Waterbury, Conn. Bulletin 111. Paper; 8 × 10½ ins.; pp. 8; illustrated.

What is known as "Class II." recording thermometers, especially adapted for recording feed-water temperatures are described here. There are many full-size reproductions of various types of charts.

GRAVEL FOR GOOD ROADS.—James A. De Groat Co., 17 Battery Pl., New York City. Paper; 8 × 8 ins.; illustrated.

Jonespoint and Roa Hook "natural bonding" gravel for macadamising is the subject of this booklet. The illustrations are attractive views of roadways on which this gravel is in use.

DRYING PLANTS.—Green Fuel Economiser Co., Matteawan, N. Y. Bulletin 126. Paper; 6 × 9 ins.; pp. 32; illustrated.

Fans, heater coils and various arrangements of both these kinds of apparatus are described in this pamphlet for all sorts of industrial drying plants. Ten pages in the back are devoted to typical calculations for drying plants.

FOUNDRY FACINGS.—Joseph Dixon Crucible Co., Jersey City, N. J. Paper; 3⅝ × 6⅝ ins.; pp. 12; illustrated.

General information on the use and behavior of facings in a mold is followed by brief descriptions of the facings made by the Dixon company for various kinds of work. Prices are given.

CORE DRILLS.—Cyclone Drill Co., Orrville, Ohio. Bulletin 3. Paper; 6 × 9 ins.; pp. 44; illustrated.

The development of the chilled-steel shot core drill out of the older diamond drill is outlined preliminary to discussing the merits of the apparatus put out by this concern. The details of the different designs are explained.

TROLLEY GUARD FOR GRADE CROSSING.—Automatic Trolley Guard Co., 61-69 Carroll St., Buffalo, N. Y. Paper; 9 × 11½ ins.; pp. 4; illustrated.

This is a trough-shaped device placed on the trolley wire at railway grade crossings and so arranged as to automatically replace a trolley wheel that leaves the wire while the car is on the crossing.

ELECTRIC DRIVES IN PAPER MILLS.—General Electric Co., Schenectady, N. Y. Bulletin 4665. Paper; 8 × 10½ ins.; pp. 11; illustrated.

To show the application of electric motors in the paper industry the plant of the United Box-Board & Paper Co., of Lockport, N. Y., is described, with data relative to the number and size of the motors installed.

TUBULAR POLES.—Electric Railway Equipment Co., Cleveland, Ohio. Paper; 4½ × 6 ins.; pp. 17; illustrated.

These poles are of iron or steel pipe with patented wire-lock swedged joints, and are intended for electric railway, lighting, signal, telegraph and telephone service. There are several tables of the strength and weight of poles of various diameters and lengths.

STEEL POLES.—Sciple Sectional Pole Co., Minneapolis, Minn. Paper; 4 × 9 ins.; pp. 24; illustrated.

The poles are built of angles and collars, with a central rod set up by a turnbuckle, the rod being attached to the cap and base. Steel cross-arms are used. They are intended for electric light, railway and other purposes, but it is not stated whether they are in use.

CONCRETE TANKS.—The Associates of American Portland Cement Manufacturers, Land Title Bldg., Philadelphia. V. 4, No. 2, June, 1909, of "The Concrete Review." 6 × 9 ins.; pp. 30; illustrated.

This number of "The Concrete Review" contains considerable useful information regarding the construction of small concrete tanks, mainly of the sort used on farms and in private grounds. Although the method of treatment is likely to create the impression that large tanks are equally easy to design and construct as are small ones, the pamphlet should be found of great use by a number of persons.

BOILER-TUBE CLEANERS.—The Lagonda Manufacturing Co., Springfield, Ohio. Catalog J. Paper; 5 × 7 ins.; pp. 48; illustrated.

The Weinland turbine boiler-tube cleaners are manufactured in several types adapted for different scale conditions in boilers. These various types are described in detail and the scale condition for which each is suited is pointed out. For boiler tubes which are very heavily encrusted, the company manufactures mechanical cleaners and air or steam motor-driven cleaners. These are described as well as their feeding device for cleaning Stirling boilers, a reseating machine for cleaning the faces of the headers, where the cover seats, and an automatic safety cut-off valve for boiler steam pipes.

FLEXIBLE SHAFTING.—Coates Clipper Mfg. Co., Worcester, Mass. Bulletin No. 22. Paper; 6¼ × 8¼ ins.; pp. 66; illustrated.

The construction of the Coates flexible shaft is described in this bulletin. Numerous drilling, grinding and polishing appliances for use in connection with this shafting are illustrated and explained and their prices are listed.

GRADING MACHINERY AND DUMP WAGONS.—T. F. Stroud & Co., Omaha, Neb. Paper; 6 × 9 ins.; pp. 20; illustrated.

The grading machinery includes wheel and dray scrapers, buck and tongue scrapers, elevating graders, road levelers and grading plows. The wagons include four-wheel dropbottom wagons and two-wheel end-dump carts. A special make of wheel is used for the wheeled scrapers.

STEEL POLES AND TOWERS.—Archbold-Brady Co., Engineers and Contractors, Syracuse, N. Y. Paper; folders; illustrated.

These circulars show built-up steel poles and towers for electric transmission lines, steel bridges for supporting caternary cables of electric railways, and special terminal towers and anchor towers for long cable spans.

CONTRACTORS' LIGHTS.—Alexander Milburn Co., 507 West Lombard St., Baltimore, Md. Catalog J. Paper; 6½ × 9½ ins.; pp. 22; illustrated.

The Milburn portable acetylene light is made in hand-lantern sizes (50 to 500 c. p.) and in larger sizes up to 2,000 c. p. Its operation and advantages are set forth in this catalog, the bulk of which is devoted to testimonial letters.

GAS AND ELECTRIC FIXTURES.—Beardslee Chandelier Mfg. Co., 176 South Clinton St., Chicago. Cloth; 12½ × 15 ins.; pp. 166; illustrated.

All the familiar types of gas and electric lighting fixtures for residence and hall lighting are listed here with prices. In addition to the old stock designs there are a few examples of recent work of somewhat greater artistic value.

BALATA BELTS.—New York Leather Belting Co., 51 Beekman St., New York City. Paper; 6 × 9 ins.; pp. 64; illustrated.

The gathering of the gums of the Boela tree in Guiana and Venezuela, the curing of the gum and its manufacture into belts are all adequately described in this catalog. Innumerable successful installations under various trying conditions are illustrated also.

CORRUGATED IRON CULVERTS.—The Canton Culvert Co., Canton, O. Paper; circulars; illustrated.

The Acme "No-Co-Ro" culverts are of a grade of wrought-iron said to resist corrosion and to give a life of at least 25 years. They are galvanized sheets of semi-circular shape with flanged joints. There is a long list of steam and electric railways using these culverts.

SURVEYORS' LEVELS.—J. C. Ulmer Co., 113 Prospect Ave., N. W., Cleveland, Ohio. Bulletin No. 52. Paper; pp. 16; illustrated.

Descriptive notes and prices of engineers' wye and dumpy levels and architects' levels are given in this bulletin. Brief directions for adjusting and testing wye and dumpy levels are given and there is also a price-list of extras and parts.

THERMIT WELDING.—The Goldschmidt Thermit Co., 90 West St., New York, N. Y. Paper; two pamphlets; 8 × 11 ins.; pp. 20; 4x 9 ins.; pp. 20; illustrated.

The larger pamphlet describes various applications of the thermit system of welding. The smaller pamphlet shows its application to repair work, including locomotive frames, cylinders and wheel-centers, dredge buckets, anchors, gears, fly-wheels, etc.

AUTOMATIC BUCKETS AND SKIPS.—Cockburn Barrow & Machine Co., 30 Church St., New York City. Paper; 6 × 9 ins.; illustrated.

"Lockwood" automatic dumping buckets and cableway skips are shown in this booklet. The "Lockwood" skip was described in Engineering News, April 22, 1909. The bucket has bottom doors which can be opened wide or, if desired, to any lesser opening by the man at the winding engine.

STEEL RAIL SPECIFICATIONS. — The American Bureau of Inspection and Tests, 29 Broadway, New York. 3 × 6 ins. pp. 22; illustrated.

Under the title "Specifications for Steel Rails, Relaying Rails and Steel Splice Bars," this booklet contains, in small space, the specifications for Bessemer and open-hearth rails, together with the sections, proposed or adopted, by the American Railway Association, steel manufacturers, and Pennsylvania R. R., respectively.

FOUR-WHEEL SCRAPERS.—The Maney Mfg. Co., East St. Louis, Ill. Paper; 5¼ × 8¼ ins.; pp. 16; illustrated.

The special features of this type of wheeled scraper are the large capacity of the scraper bucket and the operation of the machine by the driver, so that no loaders or dump men are required. Thus a smaller number of machines and men can do the same work as a larger force with ordinary machines, while a material saving in cost is claimed.

LEADAMANT PIPE.—National Lead Co., 111 Broadway, New York. Paper; 11 × 8 ins.; pp. 8; illustrated.

The pipe described in this pamphlet is composed of pig lead and regulus of antimony. It is said to weigh only two-thirds as much per running foot as lead pipe of the same strength; to be harder than lead pipe, but sufficiently ductile for ordinary purposes; and to be "practically unsusceptible to the deleterious action of hot water."

ELECTRIC HOISTS.—Thomas Elevator Co., 113-115 South Hoyne Ave., Chicago. Paper; four circulars; each 6 × 9 ins.; pp. 4; illustrated.

These circulars relate respectively to double-cage hoists for building construction, double-drum hoists with boom swinging gear, double-drum hoists, and single-drum hoists. They are intended for use on contracting and construction work, operating pile drivers, derricks, cableways, material elevators, etc.

STEEL POLES.—Franklin Steel Co., Franklin, Pa. Paper; 7 × 10¼ ins.; pp. 14; illustrated.

The "Tripartite" pole is built up of three U-shaped bars connected by malleable-iron spreaders and collars, and having special brackets and other attachment for cross arms, trolley-wire brackets, etc. They are used for telegraph and transmission lines, and for electric lighting and electric railway service.

GAS AND ELECTRIC LIGHT FIXTURES.—The Century Gas & Electric Fixture Co., 1780 Grand St., New York City. Paper; 11 × 8 ins.; pp. 96; illustrated.

Most all the familiar stock types of gas and electric lighting fixtures are herein pictured, with prices. The designs shown include a very few of the types evolved in recent years as a result of the criticisms of old designers from the artistic point of view. A full line of small fittings also is included in the catalog.

GAS ENGINES.—National Meter Co., 84 Chambers St., New York City. Paper; 7 × 9 ins.; pp. 36; illustrated.

The "Nash" gas-and gasoline engine has become one of the products of this concern, formerly best known through its water meters. This catalog discusses the general merits of internal combustion motors for various services, applying the general conclusions to this one line of designs. Dimensions, capacities and general appearance of the several models are given.

GRADING MACHINERY.—Smith & Sons Mfg. Co., Kansas City, Mo., Paper; 10½ × 7 ins.; pp. 72; illustrated.

This is a catalog and price-list of "Royal" wheel and drag scrapers of various kinds, grading plows, dump wagons, road and ditch graders, portable rock crushing and screening outfits, and horse rollers. The wheel scrapers are so made that the driver rides upon the machine and controls the operations of loading and dumping, without the aid of other men in the pit or at the dump.

PORTABLE INDUSTRIAL RAILWAYS.—Arthur Koppel Co., New York and Chicago. Paper; 6 × 9 ins.; pp. 24; illustrated.

The track for thes portable railways consists of straight or curved sections, each composed of rails bolted to corrugated steel ties. Switches, crossings, turntables, etc., form separate sections. The gage is from 18 to 36 ins. The equipment includes steel flat and dump cars of various designs. These railways are used in industrial and manufacturing plants, and on contracting or other construction work.

FEED WATER SOFTENERS. — Harrison Safety Boiler Works, 3166 N. 17th St., Philadelphia, Pa. Paper; 6 × 9 ins.; pp. 36; illustrated.

A process for softening boiler feed water at the same time that it is heated is described in this booklet. In this process, advantage is taken of the fact that heating water in an open spray drives off free and combined carbonic acid gas, resulting in the precipitation of carbonates. It is claimed that by further treating the water with a single reagent, sulphates, chlorides, nitrates and acids can be counteracted, giving a perfectly softened water which will not corrode or form hard scale in the boilers. The cost of the apparatus for the hot process treatment is much less than the combined cost of the feed water heaters and water softeners required to give the same ultimate results in the boiler with the cold process system. The pamphlet contains descriptions and illustrations of various installations of the type described.

INDUSTRIAL RAILWAYS.—Ernst Wiener Co., 50 Church St., New York City. Catalog No. 200. Paper; 9 × 6 ins.; pp. 129; illustrated.

The industrial railway equipment described in this catalog is classified under the headings of cars, tracks, turntables and switches. The text throughout is given in duplicate in English and Spanish. There is a series of tables giving capacity, track gage, overall body dimensions, wheel diameter, axle diameter, plate thickness and weight of the various types of cars. Other tables give data on the rail fastenings, spikes, etc., required for one mile of track and for 1,000 tons of rails.

UNLOADING PLOWS.—The Bucyrus Co., South Milwaukee, Wis. Paper; 9 × 6 ins.; pp. 19; illustrated.

This is a steel plow for unloading rock, gravel, earth, etc., from cars, being hauled by a cable. It is made in different sizes, and for plowing the material off at one or both sides of the car; in the latter case a pilot plow is carried ahead of the main plow. Steam shovels, dredges, railway piledrivers and wrecking cranes are illustrated in the pamphlet, but only the plows are described.

HOISTING ENGINES.—Clyde Iron Works, Duluth, Minn. Paper; 9¼ × 12 ins.; pp. 56; illustrated.

Descriptions and tables of principal dimensions of single, double and triple drum hoisting engines are given in this catalog. These engines are made both with and without boilers. Friction-drum belt hoists, electric hoists, derrick swinging engines and churn-drill engines are also shown and a number of pages are devoted to pictures and descriptions of derricks, steam log-loading machines, etc.

CO_2 RECORDER.—The Caldwell Co., 220 Broadway, New York City. Paper; 7 × 10 ins.; pp. 4; illustrated.

The Westover automatic four-record CO_2 recorder is the machine described here. It is claimed that the technical operation is the same as in the hand analyzers of Hempel and of Orsat, but that the apparatus is mechanically manipulated and read. When a "four-record" machine is spoken of, it is meant to designate one recording the CO_2 in the gases from four boilers.

For other Proposal Advertisements see pages 47, 48, 49, 50, 53, of Advertisements and Construction News page 130.

U. S. ENGINEER OFFICE, Army Building, New York, N. Y., Oct. 8, 1909.—Sealed proposals for furnishing and spreading earth and fertilizing material upon an embankment at Governor's Island, N. Y., will be received at this office until 12 M., Nov. 8, 1909, and then publicly opened. Information furnished on application. S. W. ROESSLER, Col., Engrs.

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